

Pollution, Politics and Power



What should Australia do to meet the threat of climate change?

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UTSpeaks
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Summary

Pollution

- What are the sources of greenhouse pollution?
- What are the impacts of climate change?
- How can we reduce greenhouse pollution?

Politics

- How have governments responded to the threat of climate change?
- Why are some solutions favoured by government and industry?
- Has the public been adequately consulted?

Power

- How can citizens have a say in Australia's response to climate change?
- What can you do to reduce your contribution?

Climate change is real

- World Resources Institute, March 2006

“2005 was a year in which the scientific discoveries and new research on climate change confirmed the fears and concerns of the science community. The findings reported in the peer-reviewed journals last year point to an unavoidable conclusion: The physical consequences of climate change are no longer theoretical; they are real, they are here, and they can be quantified”.

“Taken collectively, they suggest that the world may well have moved past a key physical tipping point”.

“The science tells us the effects of climate change are at a scale that adds enormous urgency not only to the efforts to prevent additional change, but equally important, to efforts to adapt to the impacts already occurring”.



11 April 2006

pollution • politics • power

Climate change is real

- Senator the Hon Ian Campbell, Minister of Environment and Heritage, November 2005

“Climate change is a serious global challenge that will require sustained action by all greenhouse gas emitting nations over many generations”.

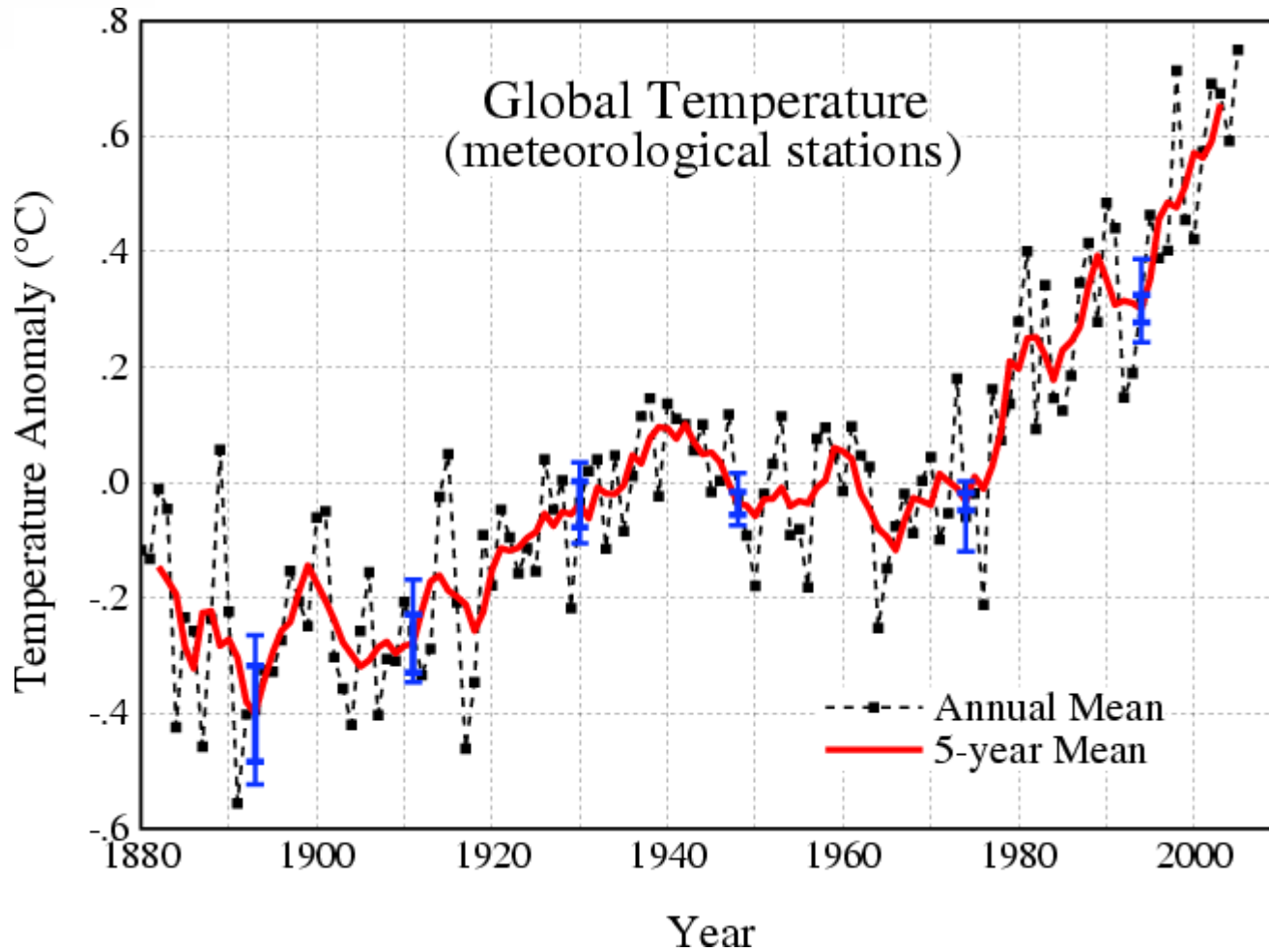
- Australian Business Roundtable on Climate Change, April 2006

“Climate change is a major business risk and we need to act now”.

“There is broad consensus that climate change is real, the impacts may be significant and we need to act to reduce greenhouse gas emissions”.

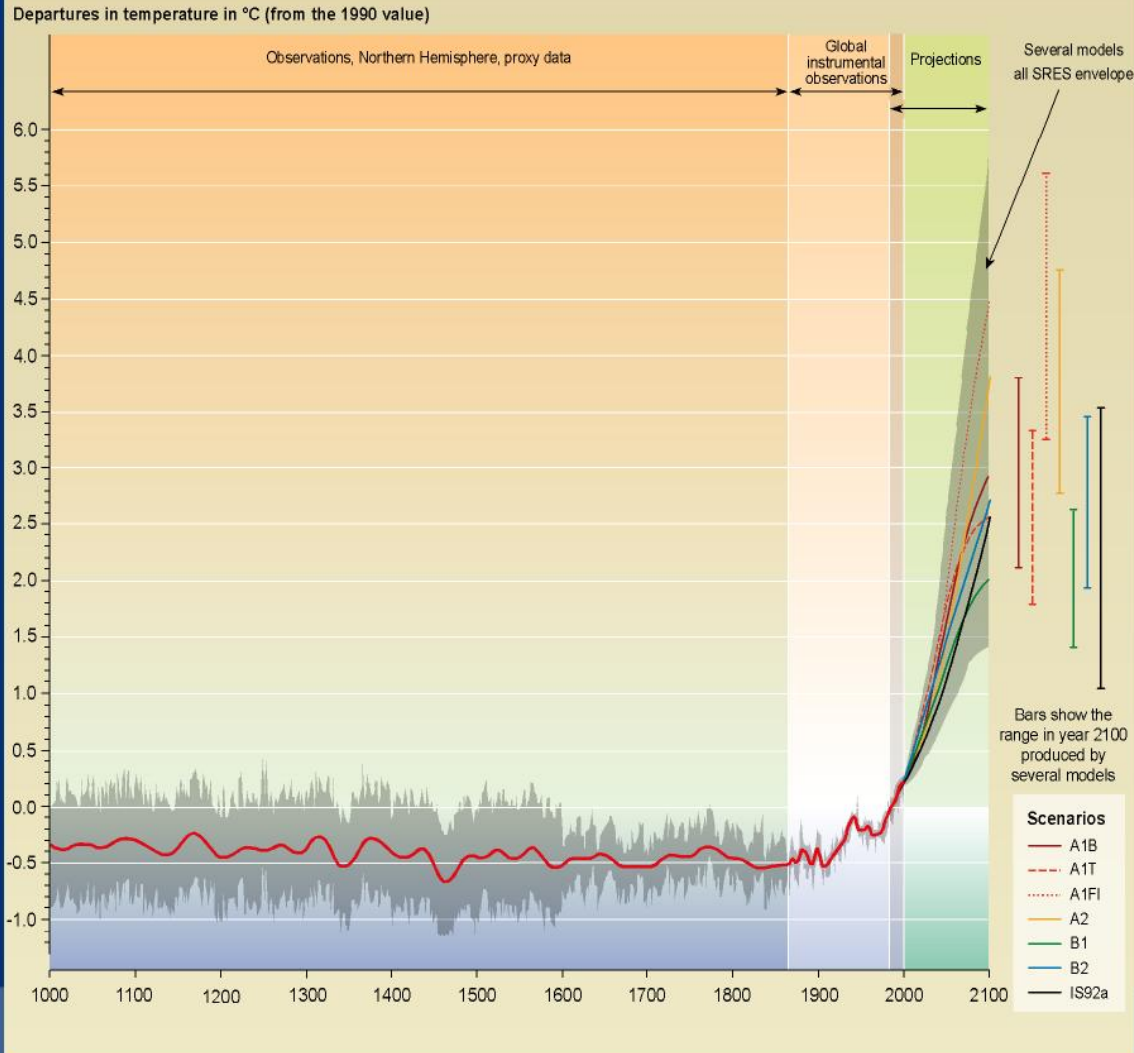
What do we know?

- Human activities, such as burning fossil fuels, land clearing and agriculture, release greenhouse gases
 - Carbon dioxide, methane and nitrous oxide
- Carbon dioxide concentrations
 - 280 ppm in 1750, 377 ppm in 2004 (up 35%)
- Greenhouse gases trap the Earth's heat, leading to global warming
- A warmer climate has more energy and is more unstable



Source: NASA Goddard Institute for Space Studies

Variations of the Earth's surface temperature: year 1000 to year 2100



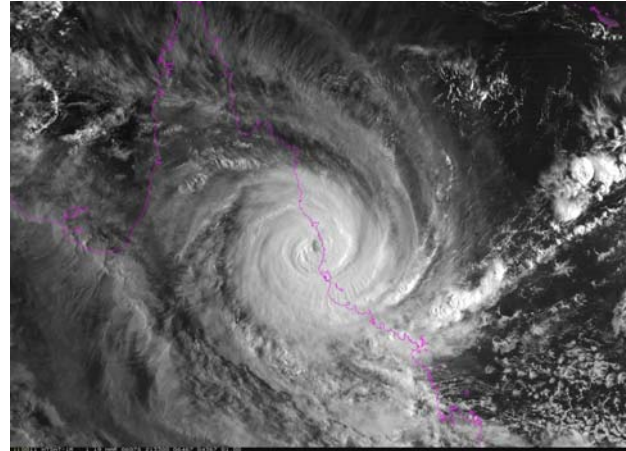
SYR - FIGURE 9-1b

Global impacts

- Higher average and extreme temperatures
- Higher heat stress mortality
- Reduction in crop yields in tropical, sub-tropical and mid-latitude regions
- Decreased water availability in many water-scarce regions
- Greater climate variability and instability (more hurricanes and tropical cyclones)
- Sea level rise and coastal inundation
- Increased risk of flooding
- Increased exposure to vector-borne and water-borne diseases
- Extinction of species that are unable to adapt to the rapid rate of change
- Possibility of abrupt, severe changes in climate

In Australia...

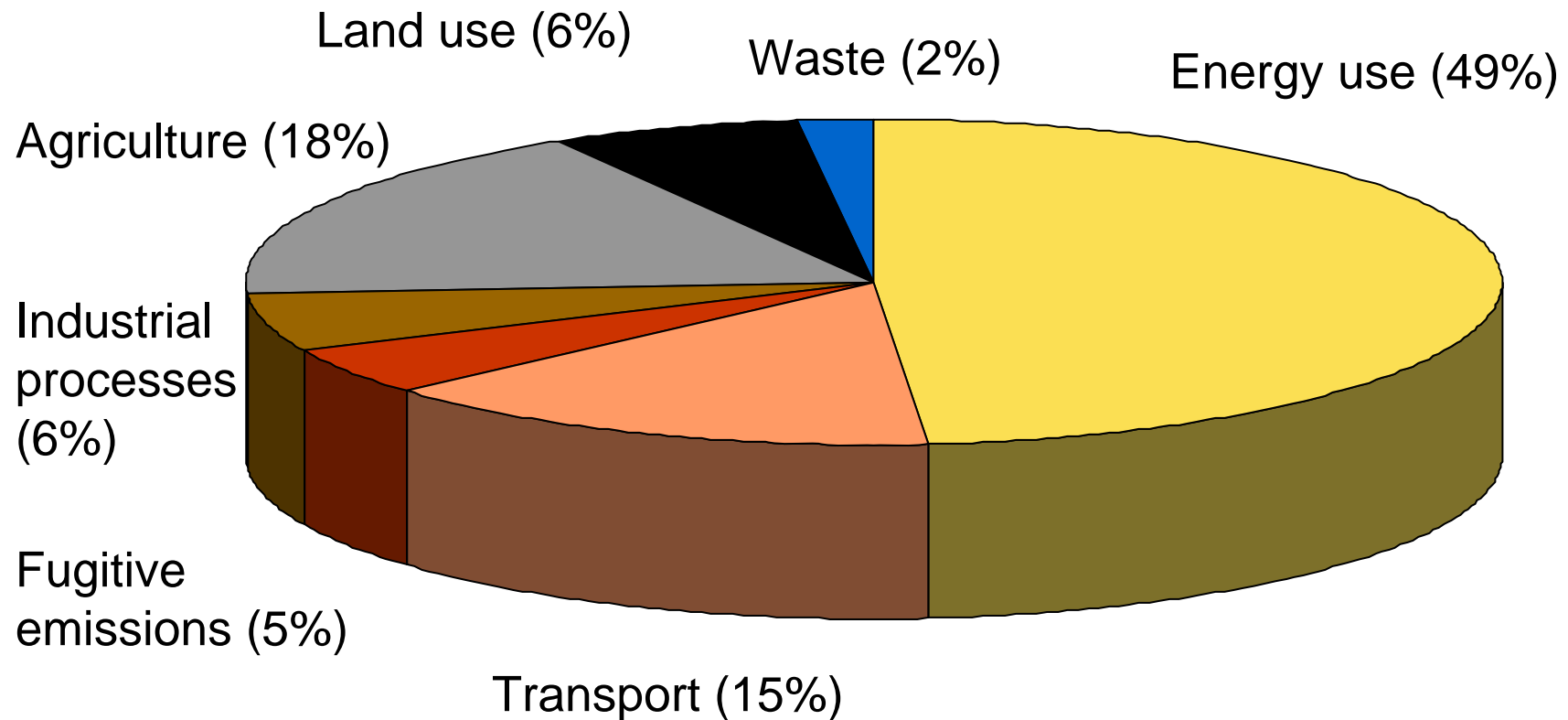
- Coral bleaching in the Great Barrier Reef
- Declining rainfall across most of Australia
- More heat waves, tropical cyclones, droughts and floods
- Threats to Alpine ecosystems, rangelands and tropical rainforests



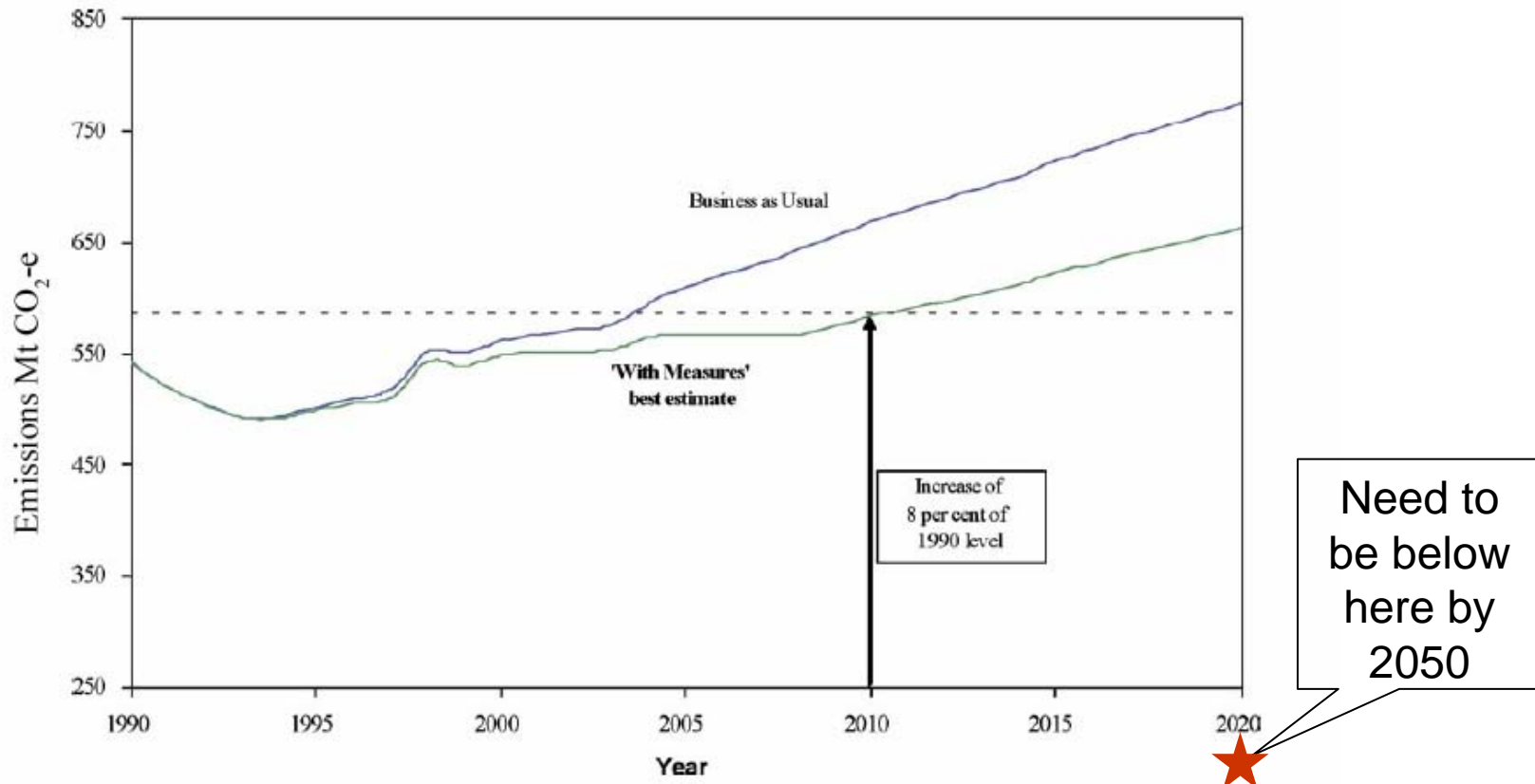
Key reasons to act now

- Climate change is a threat to global and national security
- Climate change is an economic threat and an economic opportunity
- Climate change is an ethical and moral issue – we should act to save lives and species

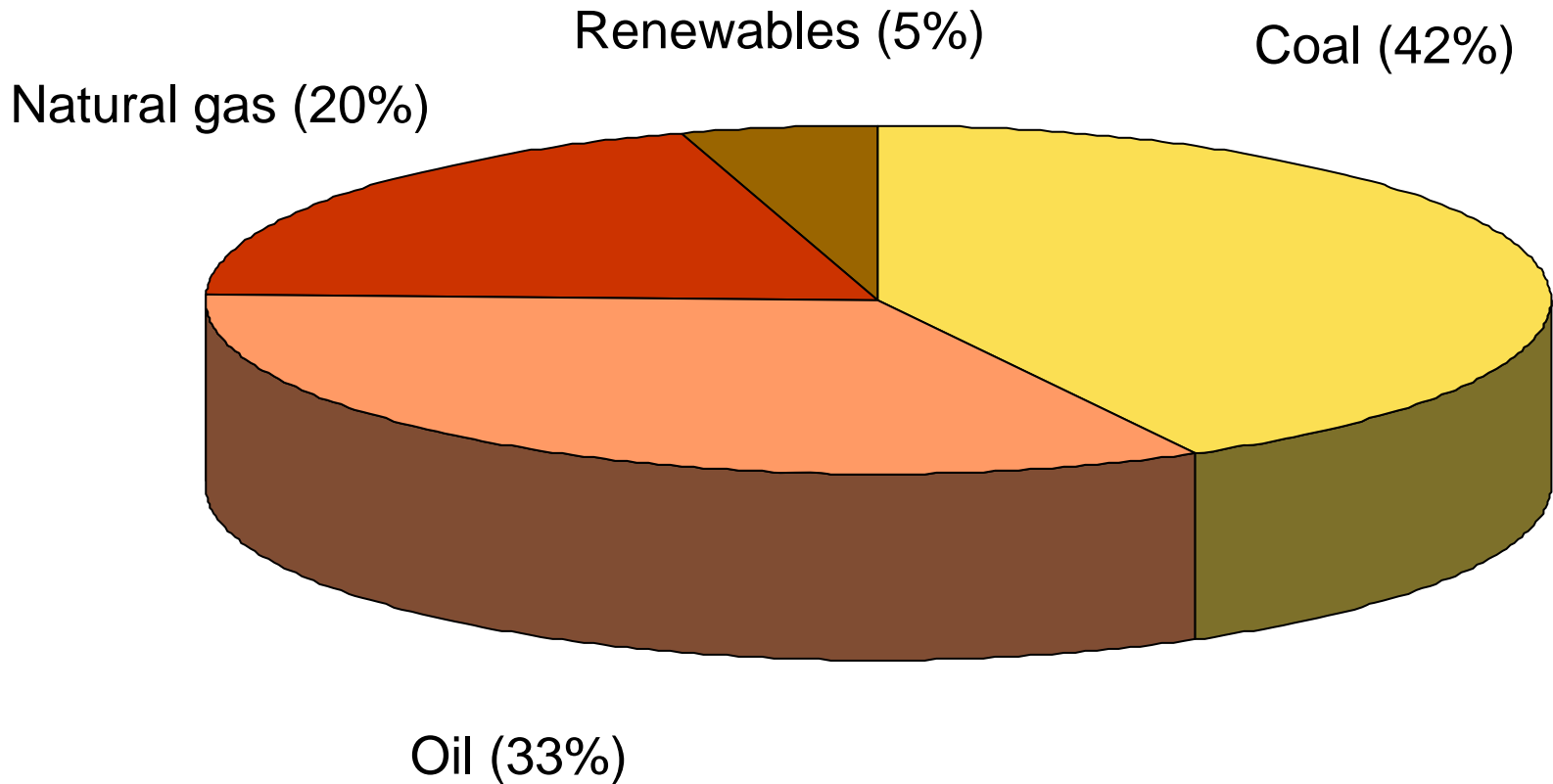
Australia's emissions - 2003



Emission trends



Australia's energy sources 2003-04



Energy efficiency: Doing more with less

- Improve efficiency of appliances and equipment
- Improve building design
- Improve efficiency of energy production and transport
- Excellent short- to long-term option

