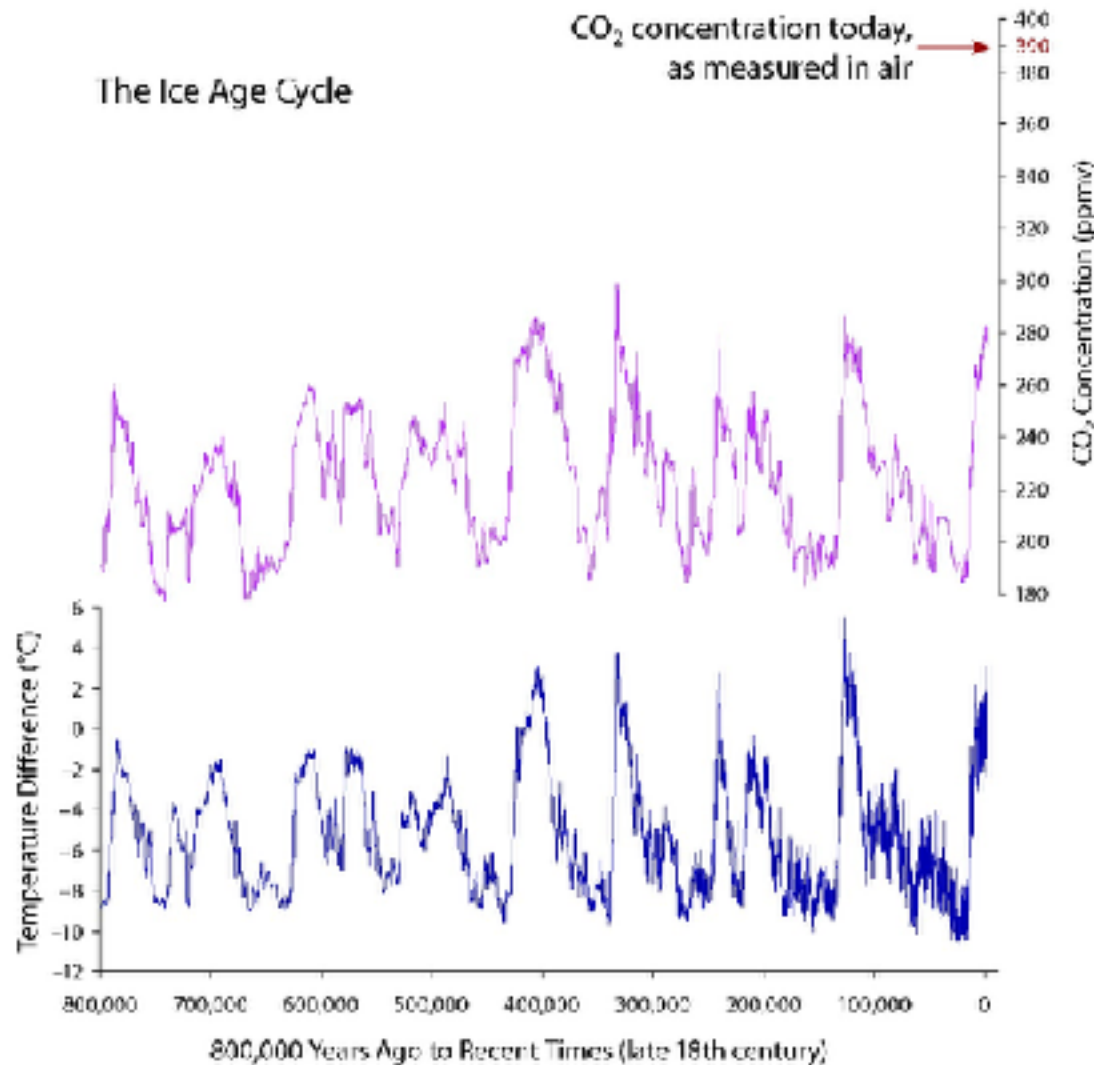


Climate change context for Built Infrastructure adaptation/mitigation.

In this presentation I also wish to acknowledge that some of this presentation utilises information provided by Tom Yankos from ClimateWorks in April 2019

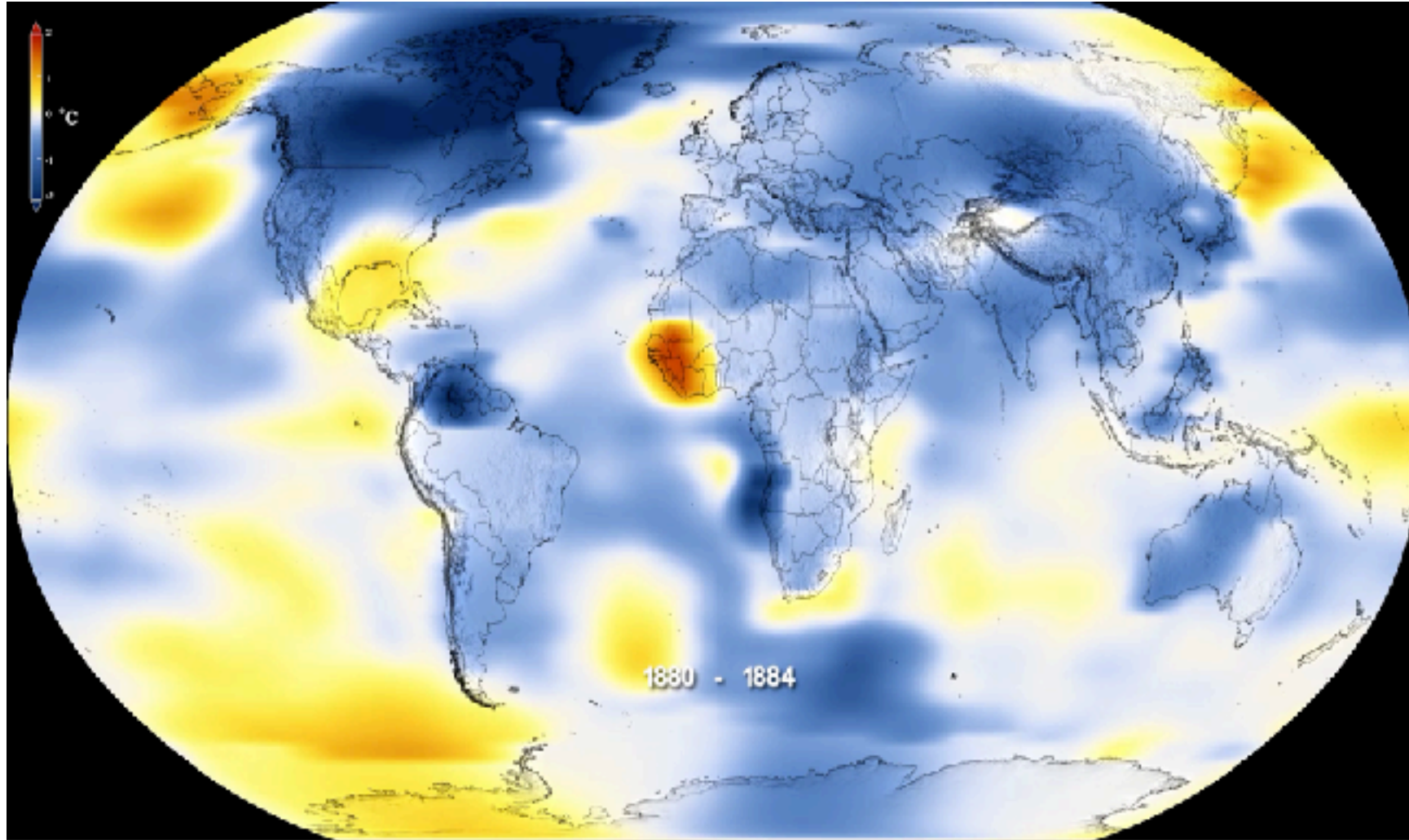
CLIMATE CHANGE – 800,000 YEARS.



Over the last 800,000 years temperature and CO₂ have tracked each other with peaks at about 100,000 intervals.

Lowest to highest CO₂ level variation approx. 190-280 but now 190-415 and CO_{2e} is higher again.

Global Temperatures : 1884-2018

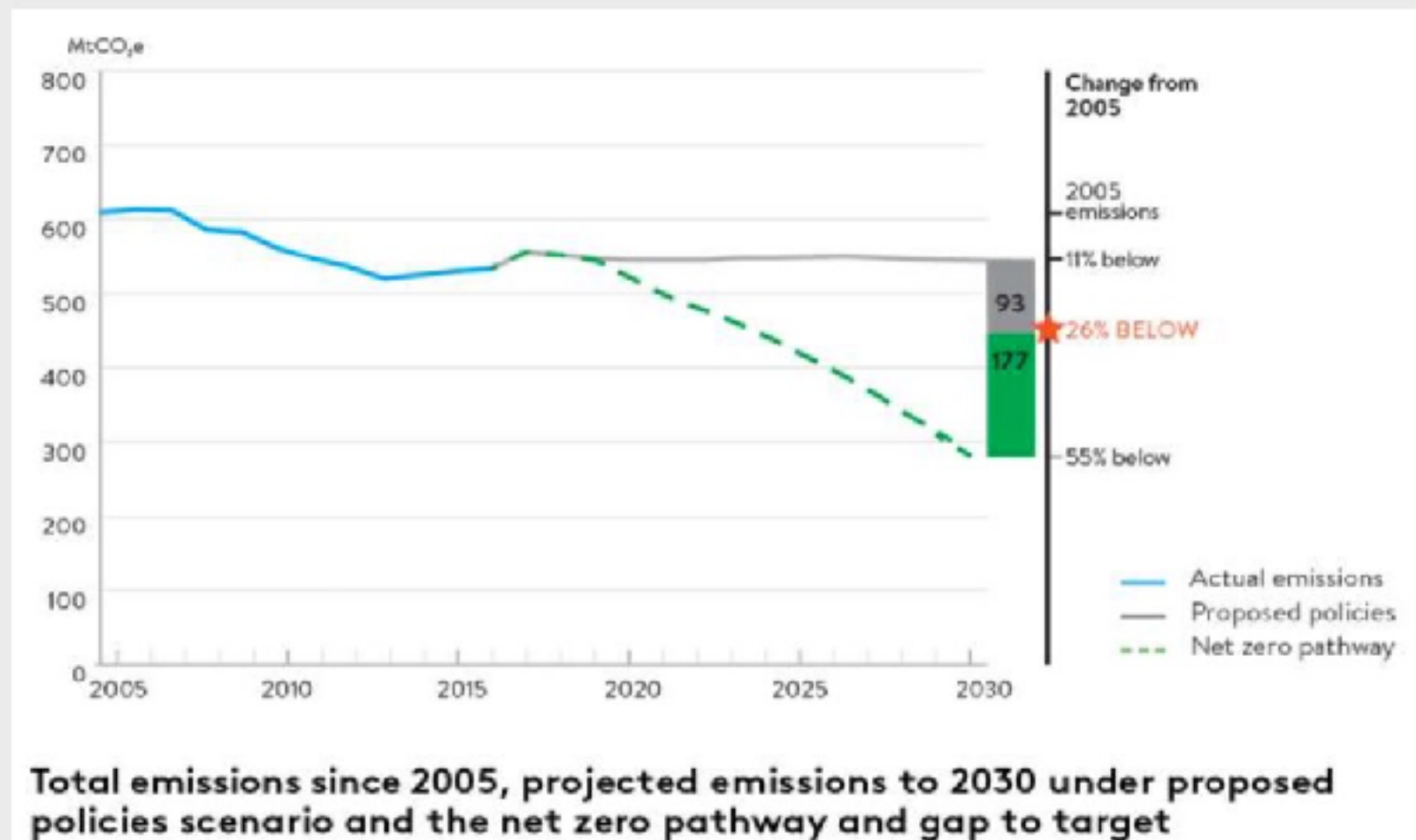


This visualization illustrates Earth's long-term warming trend, showing temperature changes from 1880 to 2015 as a rolling five-year average. Orange colours represent temperatures that are warmer than the 1951-80 baseline average, and blues represent temperatures cooler than the baseline.

Australia is not yet on track to a net zero pathway – but has the potential to get there

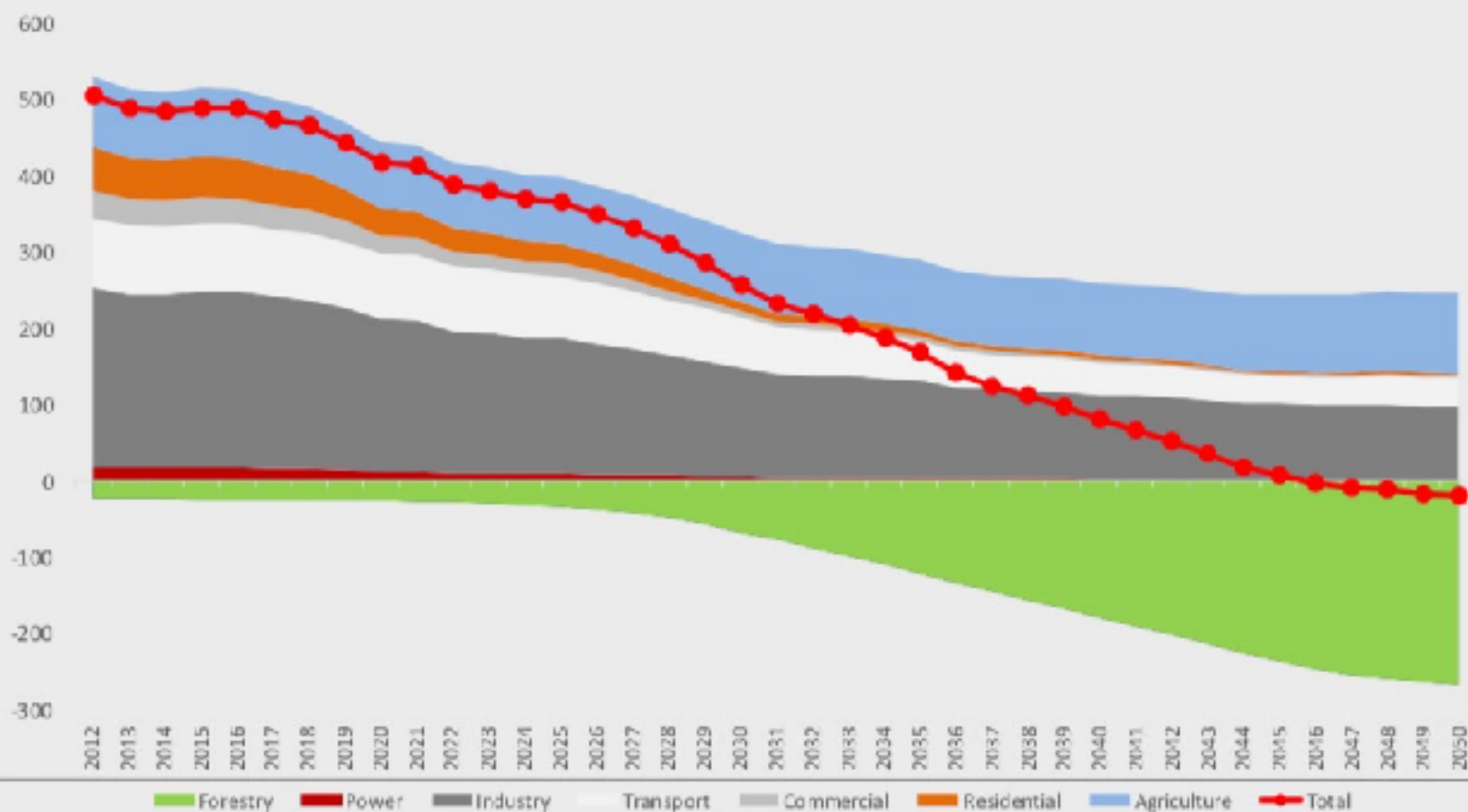


climateworksaustralia.org



Net zero emissions in 2050 is achievable, but the transition requires a concerted effort across all sectors of the economy

Greenhouse gas emissions trajectory by sector of use, MtCO₂e, 2012-2050



Emissions performance vary greatly across sectors, and the reductions have been heavily dependent on the land sector

Sector	Change in emissions from 2005 to latest year of data	Share of emissions in 2016	Share of emissions excluding electricity use
Electricity	3% below (2017) ▼	37% (includes end use by other sectors)	n/a
Industry	8% above (2016) ▲	42%	29%
Buildings	5% above (2016) ▲	21%	3%
Transport	19% above (2016) ▲	19%	19%
Land and agriculture	64% below (2016) ▼	12%	12%
Australia	11% below (2017) ▼	<i>Emissions 533 MtCO₂e</i>	

How do we transition built infrastructure to net zero emissions by 2050?

- Our two speakers who follow are going to explain the steps they consider could get us there.