



# Australia

## Emissions targets and implications for business

Australia has committed to reduce emissions by 26 to 28 per cent below 2005 levels by 2030

### *What is Australia's contribution...*

1. The **Emissions Reduction Fund** (ERF) introduced in December 2014 replaced the carbon tax that was repealed in July 2014.
2. The ERF includes a '**Safeguard Mechanism**' which monitors big emitters to ensure that investments are not undone out by increases in emissions elsewhere.
3. A range of discretionary, graduated enforcement options will be open to the Clean Energy Regulator for facilities that exceed their baselines, calculated **based on the high point of their last five years' emissions**.
4. The **Renewable Energy** Target (RET) aims for 23.5% of electricity to be generated by renewables by 2020, down by a fifth after amendments made earlier this year.
5. Individual State governments continue to pursue their own emissions reductions targets, e.g. through energy efficiency trading schemes.
6. A 2017-18 consultation is planned to determine future abatement targets and policies.

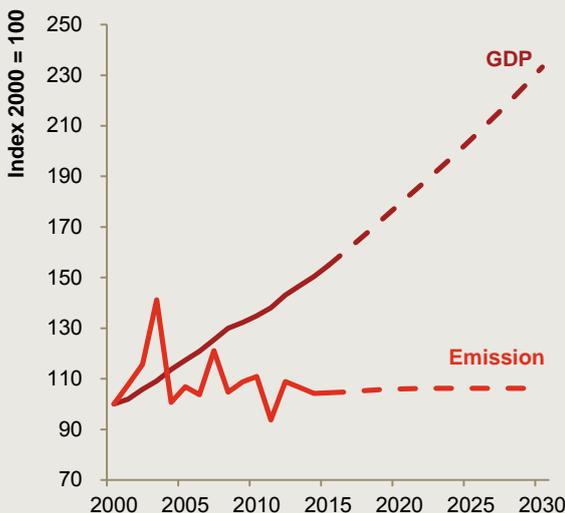
## ...and what are the implications for business

- 47 million tonnes of abatement commitments were auctioned at around **\$10 per tonne of CO<sub>2</sub>** under the ERF in April 2015, using up nearly \$0.5bn of the \$1.8bn pot. Funds are not disbursed until emissions are abated.
- **Emerging technologies** are now the focus for \$1.4bn of investment per year up to 2017 after the Abbott Government moved the mandate away from more established solar, wind and energy efficiency technologies.
- **Solar** is still attractive with falling technology costs and state level feed in tariffs of 3.5¢ – 5.7¢/kWh (lower than UK rates of 5¢ – 9¢/kWh which may be cut due to high uptake).
- New restrictions on **wind financing** by Clean Energy Finance Corporation (CEFC) could be damaging and put large scale projects in doubt.

(All dollars are US dollars)

## GDP, energy and related emissions

**GDP forecast: 2.8% per year**  
**Emissions forecast: 0.1% per year**



*Our absolute emissions trend is based on combining the GDP forecast above with the average decarbonisation rate so far this century*



**GDP:** Australia has maintained a 24 year unbroken run of economic growth since 1992. Since 2000, GDP has increased by 56%, growing at an average of 3% per year. However, GDP growth has slowed since the global financial crisis, averaging 3.4% from 2000-08 but just 2.5% from 2009-14. PwC's World in 2050 forecasts Australia to continue to grow at 2.5-3.0% per annum over the coming years to 2030.



**Renewable energy:** Australia's 6% of renewable energy has witnessed fast growth from a low base the past five years, with energy consumed from renewable sources increasing by 72% since 2009. This has been led by wind and solar collectively increasing their share of the energy mix from 1% to 3%. Solar energy consumption increased by 17.4% over 2013-14, with wind up by 10.6%.



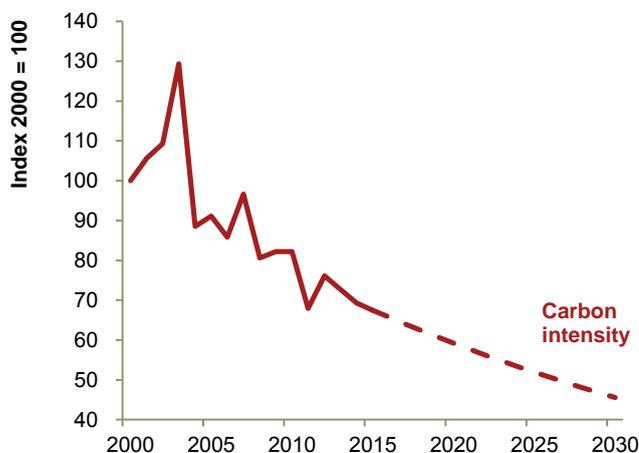
**Energy:** Australia's total energy consumption has risen by 14% since 2000. However, after a peak in 2012, total energy consumption has been falling. Energy consumed from oil, coal and gas sources fell by 2.9%, 2.3% and 0.1% respectively across 2013-14. This trend continued the slide for energy consumed from coal sources, which is down 18% since 2009, and contrasts with increasing trends for oil and gas over the same period (up 6.1% and 15.8% respectively). Coal, oil and gas still meet 94% of total energy demand in Australia.



**Emissions:** Australia's emissions breakdown by industry sector in 2013 was power and utilities 35%, agriculture, forestry and fishing 18%, manufacturing 13%, mining 12%, residential 10%, commercial services 5%, transport 5% and construction 2%.

## Carbon intensity

### Carbon intensity forecast: -2.6% per year



- Australia's decarbonisation rate has averaged 2.6% since 2000.
- For half of the years this century, Australia's carbon intensity has actually increased, driven by emissions rather than changes in GDP (which has increased steadily).
- Relatively volatile sectors such as forestry and agriculture are influential for emissions, causing large variations in carbon intensity. The spike in 2003 and 2004 reflects a 18.3% increase followed by a 31.6% decrease.
- In 2013 and 2014 Australia showed similar decarbonisation rates of 4.5% and 4.7%.
- Since 2005 there has been a steady shift of emissions away from agricultural, forestry and fisheries sources towards mining, transport and residential sources in particular, which may steady carbon intensity.
- We use the average decarbonisation rate since the turn of the century, 2.6%, for our business as usual forecast opposite and below.

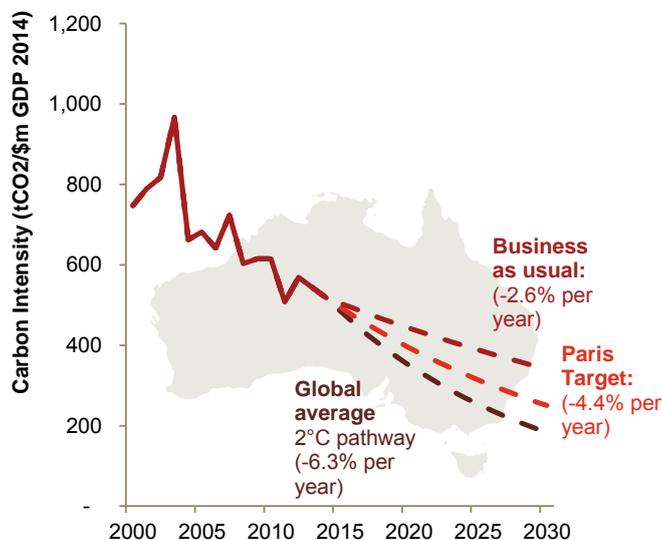
## How ambitious is Australia's 26-28% target?

To meet its target, Australia needs to decarbonise by an average of 4.4% per year until 2030, including limiting fugitive emissions from mining and land use emissions. Compared with the average rate of decarbonisation achieved this century, 2.6%, this implies that a significant increase in effort is required. So business can expect a step change in climate policy and regulation in the short term to achieve this goal.

For comparison, the EU has also been decarbonising at an average rate of 2.6% per year since 2000, but on a **steadier path**. The EU's target only requires a decarbonisation rate of 3.1%. Canada has achieved less this century decarbonising at 1.2% a year but its target requires an increase to 3.9% per year. By our measure of **ambition Australia's target appears to be more ambitious than the EU's but less than Canada's**. That is, Australia requires a greater shift in the pace of decarbonisation than the EU but less than Canada.

**However, Australia's absolute carbon intensity is above the G7 average.** Even if Australia meets its target, its carbon intensity in 2030 is estimated to be only just below that of the UK in 2014. And like all of the INDCs the rate of decarbonisation needed falls short of the global average rate required to limit warming to below 2°C of 6.3%.

### How ambitious is Australia's 26% to 28% target?



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[www.pwc.co.uk/low-carbon-economy-index-2015.html](http://www.pwc.co.uk/low-carbon-economy-index-2015.html)

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### ***Sources:***

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*Energy data: BP, Statistical Review of World Energy, 2015*

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