



Australia's Low Pollution Future Fact Sheet

Alternative Emission Pathways

The stabilisation level of atmospheric greenhouse gases depends on how soon global emissions peak and how quickly they decline.

This report examines four alternative emission reduction pathways for Australia, in the context of global action to stabilise at low levels. Under all modelled scenarios, Australia maintains economic growth while reducing carbon pollution.

Emission reduction scenarios

The report examines four scenarios in which Australia and the world follow different pathways to a low-pollution future. The scenarios are used to explore the potential economic effects of climate change mitigation policy on Australia.

Australia's medium- and long-term emission reduction targets (relative to 2000 levels) in the four scenarios are shown in the following table:

	CPRS -5 per cent	CPRS -15 per cent	Garnaut -10 per cent	Garnaut -25 per cent
Medium-term targets – at 2020				
National	-5	-15	-10	-25
Per capita	-27	-34	-31	-44
Long-term targets – at 2050				
National	-60	-60	-80	-90
Per capita	-77	-77	-88	-93

Reference scenario

The reference scenario assumes current trends in economic activity continue into the future. It does not include the impact of new policies such as the expanded Renewable Energy Target or the Carbon Pollution Reduction Scheme, or the impact climate change itself could have on the economy. This provides a benchmark against which the other four scenarios can be compared.

CPRS -5 and CPRS -15

The CPRS scenarios examine the potential costs of the Government's proposed Carbon Pollution Reduction Scheme. Under these two scenarios, Australia's action takes place within a multi-stage global policy framework. National emission pathways gradually diverge from reference scenario emission levels towards substantial reductions in the long term.

The CPRS -5 scenario is consistent with stabilisation of the atmospheric concentration of greenhouse gases at around 550 parts per million (ppm) by 2100; the CPRS -15 scenario is consistent with stabilisation at around 510 ppm.

Garnaut -10 and Garnaut -25

The Garnaut scenarios were developed jointly by the Treasury and the Garnaut Climate Change Review. These scenarios assume united global action from 2013, representing an optimal post-2012 international agreement. National contributions are based on a contraction and convergence approach, whereby the allocation of emission rights among countries converges from current levels to equal per capita rights by 2050.

The Garnaut -10 scenario is consistent with stabilisation at around 550 ppm by 2100. Under the Garnaut -25 scenario, concentrations peak above 500 ppm, then decline to around 470 ppm by 2100 (consistent with stabilisation at 450 ppm soon thereafter).

Economic growth continues

Under all the scenarios modelled in the report, Australia and the world continue to grow while making the emission cuts required to reduce the risks of dangerous climate change. The report indicates that efficient mitigation policies that price carbon pollution can break the link between economic growth and emissions and lead Australia to a prosperous low-pollution future.