36% by 2030

AUSTRALIAN EMISSIONS TARGETS FOR 2025 AND 2030

Australia's current emissions target for 2020 is a 5% reduction on 2000 levels. It is highly likely that existing policy settings will see this target achieved. In the coming months, world attention will turn to Australia's carbon emissions targets beyond 2020. The Government has reportedly proposed a target of a 26%-28% reduction on 2005 emissions levels by 2030. In 2009, Frontier Economics recommended a target for 2020 of 10% reduction on 2000 levels[1]. In our view, a 25% reduction on 2005 emissions levels by 2025(36% by 2030) would be consistent with our previous proposal and highly achievable.

This note provides some context for comparing these targets and tasks.

WHAT'S IN A BASE YEAR?

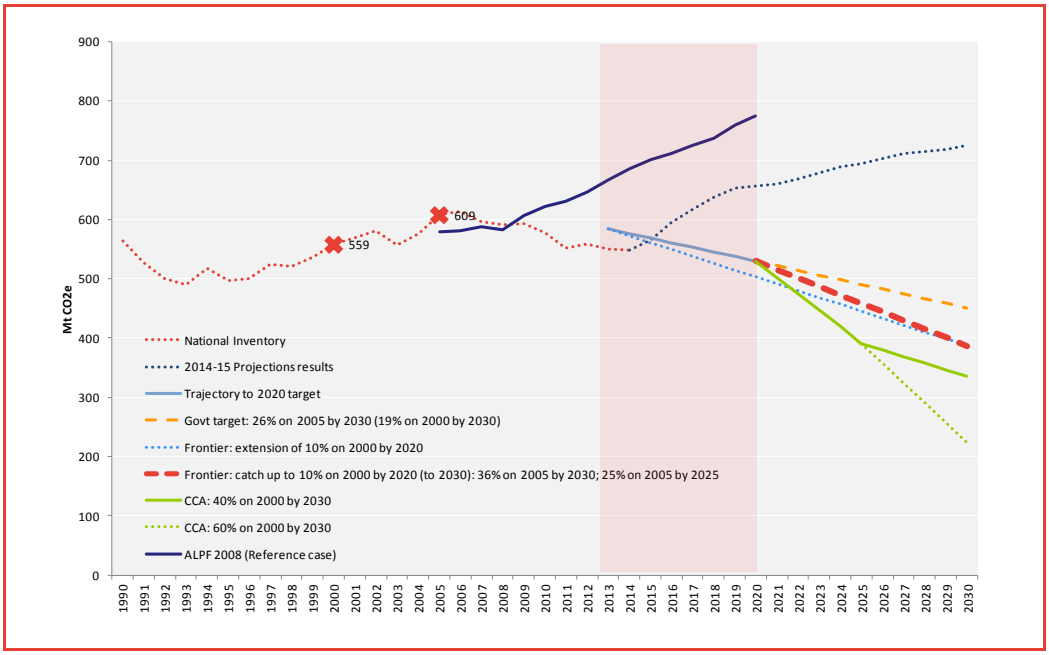
Figure 1 provides a quick comparison of historical emissions, targets and trajectories. Key points to note are:

- Australia's current target for 2020 is a **5% reduction on 2000** levels (559MtCO2e) by 2020 (light blue).
- The proposed targets for the 2025/2030 reduction targets are being expressed relative to 2005 levels, which is more consistent with the US base year. Since emissions increased to 2005 (to 609MtCO2e) this same 2020 target reflects a **13% reduction when compared with 2005** levels.
- The Climate Change Authority recently recommended targets of **40-60%** reduction on **2000 levels by 2030** (green).
- The Government appears set to announce a target of **26%-28%** reduction on **2005 levels by 2030** (orange). This implies a 2025 reduction target of around 19%.
- In 2009, Frontier proposed a harder 2020 target (10% on 2000 levels) than was adopted on the basis that this target was highly achievable. An extension of that 2020 target would be consistent with a **25% reduction on 2005 levels by 2025** (**36% reduction on 2005 levels by 2030**). (red dashed)

---

1 http://www.frontier-economics.com.au/documents/2014/06/cprs-report.pdf

Figure 1: Comparing baselines, trajectories and targets



Source: Frontier Economics, Department of Environment, Australia's abatement task (2015), Climate Change Authority, *Final Report on Australia's Future Emissions Reduction Targets*, (July 2015). Treasury, *Australia's Low Pollution Future* (2008).

IMPLICATIONS AND CONTEXT

When the 2020 target was adopted (2008/9), the expectation was that this would require cumulative emissions reductions of **1,335MtCO2e** from 2013-2020, or an average of around **166Mt/year**. The expected trajectory in 2008 is marked in navy in Figure 1. Frontier's proposed 10% target implied a task of ~**176Mt/year**.

The actual trend has tracked much lower than this (red dashed), reflecting the effectiveness of policies implemented to reduce emissions. The remaining cumulative abatement task to meet the 2020 target is now **236Mt CO2e**.

If the latest emissions projections (navy dashed) are correct then the Government's proposed 26% on 2005 levels by 2030 implies an annual abatement task of **171Mt/yr** from 2021-2025. Frontier's proposed 25% on 2005 by 2025 (36% by 2030) implies an annual abatement task of **190Mt/yr** from 2021-2025

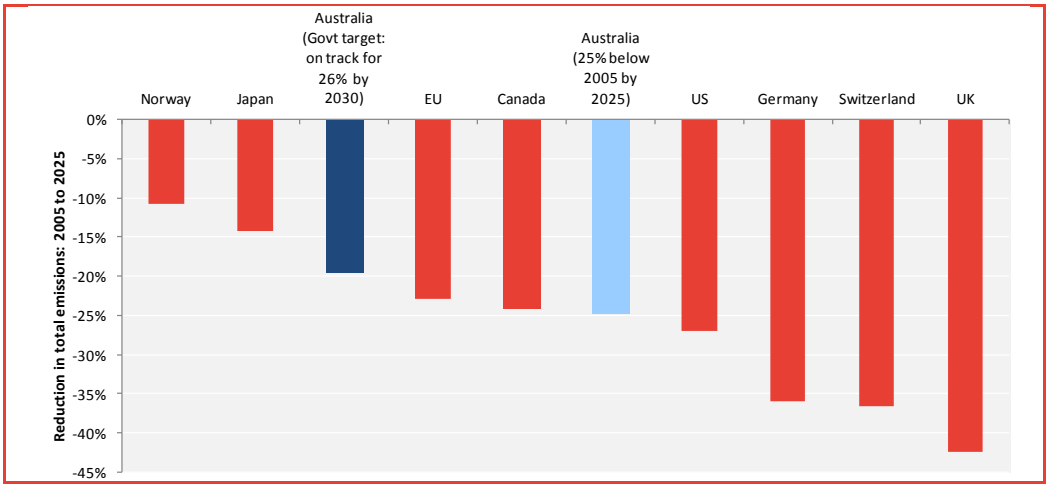
These expected tasks are comparable with the task that was expected from 2013-2020 at the time of agreeing the 2020 target. This has proven to be very achievable in part because the baseline projections used for comparison do not reflect the effect of policies aimed at reducing emissions, particularly in the area of energy efficiency, which is contributing as much to emissions abatement as the renewable energy target. These include numerous policies other than the carbon price or Direct Action which have had considerable impact despite the lack of news headlines. Recent history shows that this abatement task is conservative with the policy tools available and a higher target would be achievable.

36% by 2030

INTERNATIONAL COMPARISONS

Figure 2 shows a comparison of total abatement tasks to 2025, including the implied Government target and a target of 25% by 2025. The latter is comparable with the EU, Canada and the US.

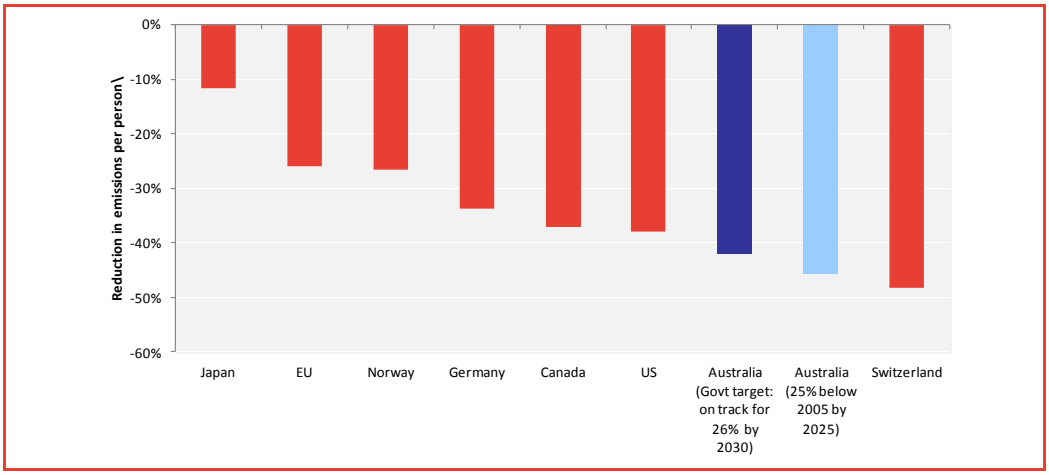
Figure 2: Comparing total abatement tasks to 2025



Source: Frontier Economics, adapting Climate Change Authority, *Final Report on Australia's Future Emissions Reduction Targets*, (July 2015). 25% by 2030 reflect approximately 19% by 2025.

Figure 3 shows a comparison of per-capita abatement tasks to 2025, including the implied Government target and a target of 25% by 2025. The per-capita reductions required under either proposal is comparable (or marginally higher) than the US and Canada, and considerably higher than the EU target. Arguably, Australia's higher per-capita emissions provide more opportunities for abatement but otherwise Australia's stronger population growth makes the abatement task more challenging.

Figure 3: Comparing emissions per person (change from 2005 to 2025 target)

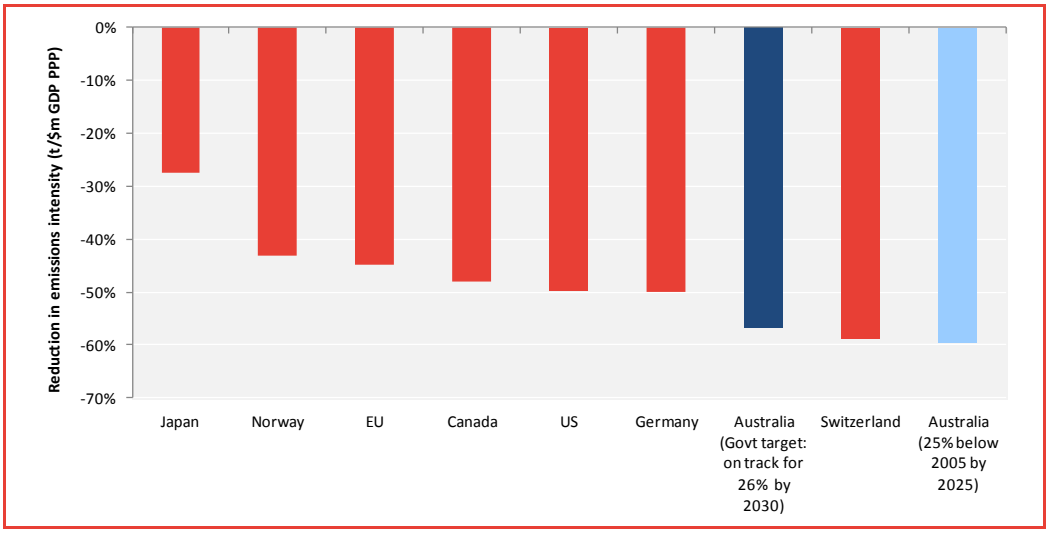


Source: Frontier Economics, adapting Climate Change Authority, *Final Report on Australia's Future Emissions Reduction Targets*, (July 2015).

36% by 2030

Figure 4 shows a comparison of emissions intensity abatement tasks to 2025, including the implied Government target and a target of 25% by 2025. This is comparable with the per-capita abatement tasks: Australia would remain a more emissions intensive economy but would also target a larger reduction in intensity relative to other nations.

Figure 4: Comparing emissions intensity (change from 2005 to 2025 target)



Source: Frontier Economics, adapting Climate Change Authority, *Final Report on Australia's Future Emissions Reduction Targets*, (July 2015).

On the basis of these comparisons and relative achievability we are comfortable recommending emissions reductions targets of 25% by 2025 and 36% by 2030 (on 2005 levels).

CONTACT	**Matt Harris** Matt.Harris@frontier-economics.com **03 9613 1514**
	Danny Price danny.price@frontier-economics.com **03 9613 1503**
	Frontier Economics Pty Ltd
	FRONTIER ECONOMICS AUSTRALIA MELBOURNE | SYDNEY | BRISBANE
	www.frontier-economics.com.au