



## 2030 Emissions: state of play

The 2020 emissions projections confirm our long stated position that Australia will not need Kyoto carryover credits to meet the Paris 2030 emissions target.

Much is made of whether the Federal Government will meet Australia's 2030 emissions target or adopt a net zero target for 2050. But all States have announced net zero emissions targets by 2050, so the lack of formal acceptance of the target at Federal level is more symbolic.

For 2030, the combination of current State 2030 emissions targets should see Australia on track for a 33% reduction of 2005 emissions, which is more than required to meet the National target of 26-28% by 2030 and closer to the 36% 2030 target that we recommended in 2015<sup>1</sup>.

State and Territory targets provide a floor on emissions reductions. For Australia to miss the 2030 national emissions targets, it would require failure at both Federal and State level to meet respective targets.

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<sup>1</sup> <https://www.frontier-economics.com.au/australian-targets-emissions-36-by-2030/>

## 2030 Emissions: state of play

Australia currently has a national emissions target of 26-28% reduction on 2005 levels by 2030. However, almost all State and Territory Governments (with the exception of WA and NT) have announced more ambitious 2030 targets as pathways to net zero targets that all states and territories have announced for 2050.

Table 1 summarises the State and Territory ambitions and the implications of these targets for the national target. **The combination of State 2030 emissions targets should see Australia on track for a 33% reduction of 2005 emissions, which is more than required to meet the national target of 26-28% by 2030.**

The following are most noteworthy:

- States with larger emissions have a greater impact on meeting the national target. The targets in QLD, NSW and Vic (and the lack of a target in WA) are most significant. The targets of the three largest emitters all exceed the national target.
- Victoria has yet to finalise a 2030 target though the range recommended by the expert panel was 45-60%. We conservatively assume the lower bound of 45% is adopted in calculations below.
  - Even if a lower target of 35% is adopted (in line with NSW) then this would still mean a national equivalent of 31% reduction by 2030, which still beyond the 26-28% national target.
- Although there is concern about growth in

LNG emissions, QLD must account for a large share of national LNG emissions as part of its 30% target: deeper cuts in other sectors in QLD are required to offset this growth.

- The main risk is growth in emissions in WA and NT (which are yet to adopt 2030 targets) that might offset the reductions in other states. The assumption in the table below is that WA and NT could reduce 2030 emissions just to 2005 levels.
  - Even if WA and NT only maintain emissions at 2017 levels, this should still result in national cuts of 30% if other regions meet their targets.
  - WA would have to grow by a further 25Mt above 2017 levels by 2030 (a **58% increase on 2005** emissions) to bring national emissions reductions down to 26% by 2030 if all other States and Territories meet their intended targets.

If all State and Territory targets are achieved, then Australia should comfortably meet the national target.

It follows that if Australia is to miss the national target then this would require failure at both the Federal and the State level in meeting applicable targets. More formal bipartisan collaboration on achieving common targets would be welcome in climate and energy policy in Australia.



**Table 1: Summary of state emissions targets**

Region	2005 emissions Mt	2017 emissions Mt	2030 target (% below 2005)	2030 target (Mt)	Notes
QLD	187	162	<b>30%</b>	131	Net zero by 2050 and <b>30% below 2005</b> by 2030 (including 50% renewables), announced 2017 <sup>1</sup>
NSW	161	132	<b>35%</b>	104	Net zero by 2050 and <b>35% below 2005</b> by 2030 announced Dec 2019 <sup>2</sup>
VIC	123	110	<b>45%</b>	68	Net zero by 2050; <b>45-65% below 2005</b> by 2030 recommended by interim panel in 2019, to be set by March 31 2020 but deferred. <b>2030 calculation assumes 45%</b> <sup>3</sup>
SA	35	22	<b>50%</b>	18	Net zero by 2050 and <b>50% below 2005</b> emissions by 2030 (currently legislated at 60% reduction on 1990 by 2050) <sup>4</sup>
TAS	18	1	<b>95%</b>	1	Net zero by 2050. No official 2030 target but by 2017 it was already 95% below 2005. <b>2030 calculation assumes this continues</b> <sup>5</sup>
ACT	1	1	<b>54%</b>	1	Net zero by 2045; <b>65-75% below 1990</b> emissions (65% is equivalent to 54% reduction on 2005 emissions). 100% renewables target. <sup>6</sup>
WA	72	89	<b>0%*</b>	72	Net zero by 2050; No 2030 target. <b>2030 calculation assumes emissions kept to 2005 levels (no cuts)</b>
NT	13	17	<b>0%*</b>	13	Net zero by 2050, no 2030 emissions target (50% 2030 renewable target). <b>2030 calculation assumes emissions kept to 2005 levels (no cuts)</b>
<b>Sum of States</b>	<b>611</b>	<b>533</b>	<b>33%</b>	<b>407</b>	<b>33% is inferred from assumptions above regarding State targets. If WA and NT are assumed to maintain emissions at 2017 levels, the national cuts fall to 30%.</b>
<b>AUSTRALIA</b>	<b>611</b>	<b>533</b>	<b>26%</b>	<b>452</b>	<b>Paris target is 26-28% reduction on 2005 emissions by 2030</b>

- [https://www.qld.gov.au/\\_data/assets/pdf\\_file/0026/67283/qld-climate-transition-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0026/67283/qld-climate-transition-strategy.pdf)
- <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Climate-change/net-zero-plan-2020-2030-200057.pdf>
- <https://www.climatechange.vic.gov.au/reducing-emissions/interim-targets> The expected announcement on March 31 2020 was delayed due to COVID 19.
- <https://www.environment.sa.gov.au/topics/climate-change/south-australias-greenhouse-gas-emissions>
- [http://www.dpac.tas.gov.au/divisions/climatechange/Climate\\_Change\\_Priorities/reducing\\_emissions](http://www.dpac.tas.gov.au/divisions/climatechange/Climate_Change_Priorities/reducing_emissions)
- [https://www.environment.act.gov.au/\\_data/assets/pdf\\_file/0003/1414641/ACT-Climate-Change-Strategy-2019-2025.pdf\\_recache](https://www.environment.act.gov.au/_data/assets/pdf_file/0003/1414641/ACT-Climate-Change-Strategy-2019-2025.pdf_recache)



## 2030 projections update

Frontier Economics has highlighted over the years that the official emissions projections are not forecasts and typically do not account for all new policies to reduce emissions or improvements in technology. The changes in projection updates are one-way – they have always fallen in new updates. It is highly unlikely that the current projections are 100% accurate when all previous projections have been overstated.

Prior to the 2019 Federal election we presented a history of how the emissions projections have consistently fallen over time as improvements in technology occur and new policies are introduced<sup>2</sup>. Our note in early 2019 highlighted that the Dec 2018 official projections<sup>3</sup> were likely overstated by 200-400Mt. The Dec 2020 projection has now fallen to 56Mt, though this would still omit the recently announced NSW Roadmap which would reduce emissions by a further 90Mt: more than enough to bridge the gap.

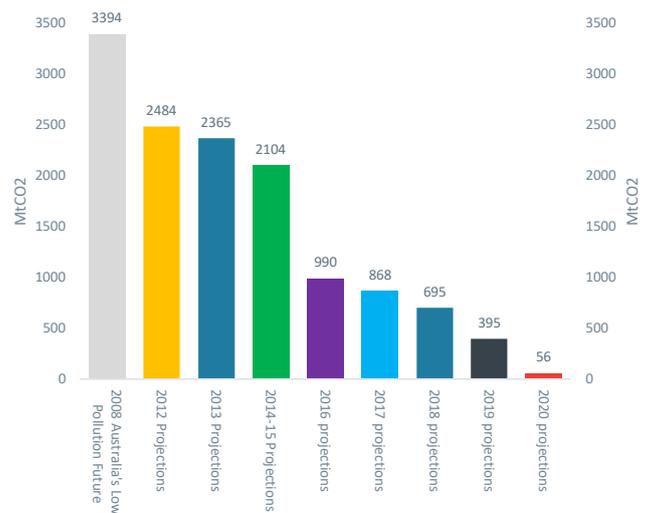
Based on the 2008 projections the cumulative abatement task would have been 3.4GtCO<sub>2</sub> for the 2021-30 period (Figure 1).<sup>4</sup>

By 2015, the projected task was still 2.1GtCO<sub>2</sub> prior to Paris (where the 2030 targets were set) and dropped to 990MtCO<sub>2</sub> a year later (after the 2030 targets were set).

This task is now down to 56Mt in the Dec 2020 projections. ***This means that the cumulative 2021-2030 abatement task has fallen by 3.3GtCO<sub>2</sub> since 2008, or 2GtCO<sub>2</sub> just in the last 5 years.***

Very large cuts can be achieved in a very short time with minimal noticeable upheaval to the economy despite the official projections: ***either abatement is easier to achieve than typically projected, or the projections tend to overestimate emission growth in the first place.***

**Figure 1: Cumulative abatement task 2021-30, Official projections**



This excludes any surplus carryover from 2008-2020. The 2020 projections suggest potential carryover of 459Mt up to 2020, which would more than offset the gap of 56Mt if used to meet the target.

Source: <https://www.industry.gov.au/publications/australias-emissions-projections-2020>

The Australian economy has not experienced a wrecking ball going through it with emissions cuts of 3GtCO<sub>2</sub>. On that basis it seems highly improbable that it would be vastly more expensive to achieve the remaining 56Mt to meet the current target, even if much of the low hanging fruit in terms of emission reduction opportunities has been taken.

<sup>2</sup> <https://www.frontier-economics.com.au/publications/lacking-vision-australian-emissions/>

<sup>3</sup> <https://publications.industry.gov.au/publications/climate-change/climate-change/publications/emissions-projections-2018.html>

<sup>4</sup> This is retrospectively given emission projections, as the 2030 target was only set in 2015.



## The falling task over time

Our early 2019 advice provided some context for what cuts in emissions are “achievable” in a given timeframe. Figure 2 shows how the cumulative abatement task (Y-axis) reflected by the official projections falls over time against the time to achieve the target, which is years until the end of the end of the target period (X-axis). The 2020 task is in red and the 2030 task is in blue. Both lines should move toward 0,0 at bottom right to meet the target, which means zero cuts required with zero years remaining.

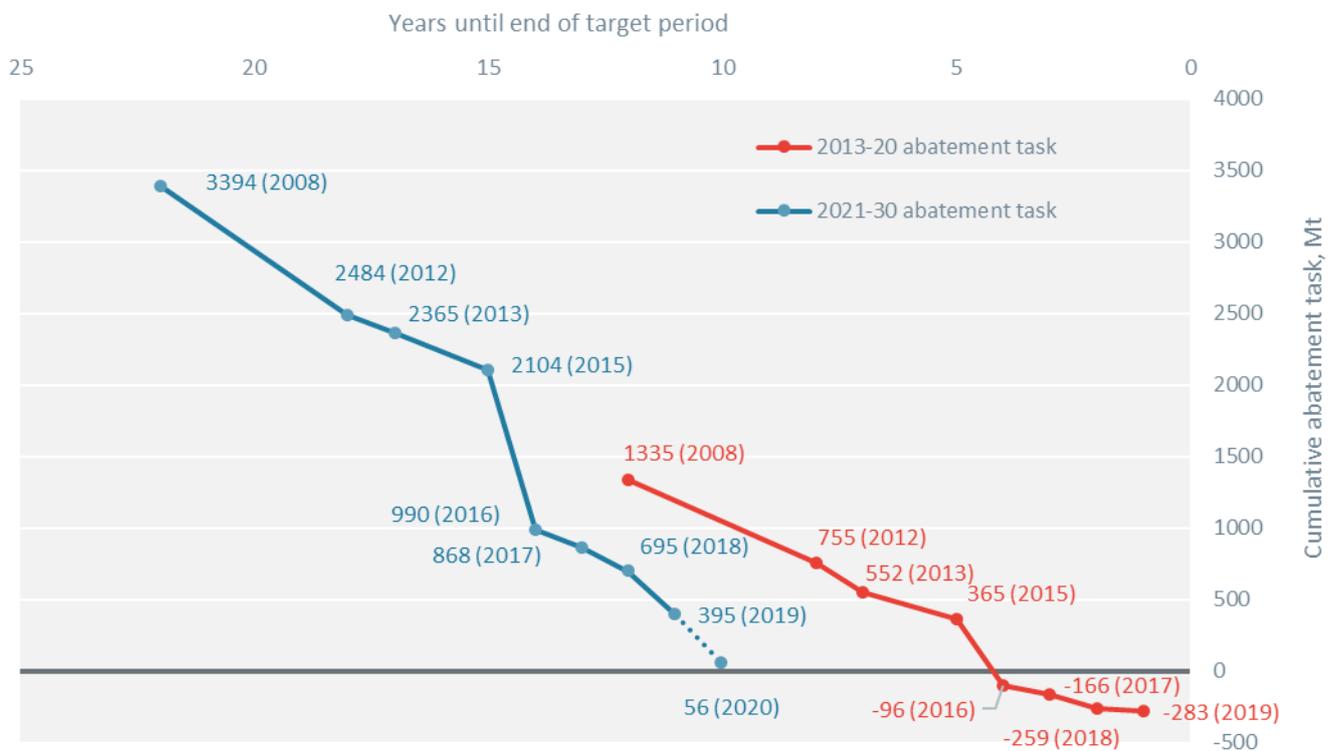
When the 2008 projections were released there was 12 years until the end of the 2013-20 target period (red) with a task of 1335Mt. This fell to 755Mt in 2012 (8 years remaining). At the time of the 2019 projections there was 1 year until the

end of the 2020 target (red), and it is estimated that Australia will outperform that target by 283MtCO<sub>2</sub>.

For the 2030 targets (blue) there is 22 years between the 2008 projection and the end of the 2030 target period (blue), and the estimated task (in hindsight) was 3.4GtCO<sub>2</sub>.

The 2030 target appeared challenging even in 2015 when the target was officially set (2.1GtCO<sub>2</sub>). However, the **projected** task has fallen rapidly in recent years. **The task is now down to 56Mt (excluding carryover) with still 11 years to achieve the remaining cuts. The inclusion of the NSW Roadmap alone should further reduce emission by around 90Mt: more than enough to bridge the gap.**

**Figure 2: Comparing abatement tasks based on official projections**



Task excludes any use of carryover from prior periods. 2013-20 task is over 8 years; 2021-30 task is over 10 years. Y-axis reflects projected abatement task; x-axis reflects years until target. The figures in brackets reflect the year of each forecast.

## Implications

Almost all commentary on government emissions projections is based on the premise that the latest projections are accurate and won't improve, despite the clear history of all previous projections. This often underpins reports that Australia is not on track to meet the 2030 target. But this ignores the role of the States in driving emissions cuts.

As a result of this, the Australian climate change debate remains stuck on the issue of whether Australia can meet the current target, or whether to use Kyoto carryover, when this should be a non-issue. The main casualty of this is that Federal Labor is reconsidering a proposed 45% target by 2030 as people question how we can adopt harder targets when the prevailing (erroneous) view is that we will struggle to meet current targets.

Applying some context to the accuracy of emissions projections shows that Australia will meet current 2030 targets without any need for carryover credits. In this context Australia should be reviewing the 2030 target with a view to deeper cuts rather than continue to debate whether it can meet current targets. The saving grace is that the States will play a key role driving cuts beyond the national target in any case.

## Contact Us

Frontier Economics has been providing independent advice to businesses, regulators and governments for over 20 years. From offices in Australia and Singapore, our team has a diverse range of skills and experiences to support the needs of our clients.

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