Private investment foregone: an analysis of the economic impact of a stalled clean energy transition

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At least $58 billion worth of new clean energy investment is at risk if renewable energy is capped at 54 per cent of Australia's electricity mix under the energy agenda proposed by the Coalition.

Analysis by Green Energy Markets for the Clean Energy Council finds that Australia would achieve 54 per cent renewables by 2028, based on projects which are already financially committed and/or under construction today.

This analysis assumes that the 82 per cent renewable energy target would be achieved by 2030 based on a combination of renewable energy generation already in operation, projects that have reached financial close and projects under construction, as well as the vast pipeline of projects with planning approval or in the early stages of development.

If investment were capped at 54 per cent, almost 29 gigawatts of new investment in large-scale solar and wind projects would be 'left on the table' – compared to an 82 per cent scenario by 2030. This would result in Australia missing out on at least $58 billion in capital investment, 37,700 fewer construction 'job years'[1] and 5,000 fewer operations and maintenance 'job years' in the clean energy sector between 2026 and 2030.

The foregone capital investment would result in a large reduction in the $68 billion of economic activity modelled by the Regional Australia Institute to be generated by wind and solar projects across regional Australia by 2030 under an 82 per cent renewable energy scenario[2].

It would also result in a loss of $2.7-3.4 billion in landholder payments over a 25-year project life cycle, and a further $696 million in direct community and council contributions by renewable energy projects.

In addition to these impacts on investment, jobs and community benefits, Australians would also be worse off under a 54 per cent cap due to higher power bills, created by under-investment in new clean power supply.

Modelling by professional services and engineering firm Jacobs, published by the Clean Energy Council in March 2025, found that the annual power bill of the average household on the National Electricity Market would be $449 higher in 2030 under a 54 per cent cap.

> "Australia would miss out on at least $58 billion of investment, 42,000 jobs and billions of dollars of community benefits under a 54 per cent cap on renewables."

[1] Job years refers to a full-time equivalent job performed over one year.
[2] Billions in the bush: Energy shift delivers $1 billion to farmers and $200 million to regional communities by 2030 | Clean Energy Council

Summary of key findings of the Green Energy Markets/Clean Energy Council analysis

- Australia will reach 54 per cent renewables by 2028, based on the 5.1 GW of wind and 4.7 GW of large-scale solar projects which are already under construction or have been financially committed to proceed.
- 'Capping' renewables at 54 per cent would see Australia forego a total of $58 billion of investment or 29 GW worth of additional large-scale solar and wind projects by 2030, comprised of an expected[3]:
  - $42.6 billion or 16 GW of wind projects, and
  - $15.6 billion or 13 GW of solar projects.
- A 54 per cent renewable energy cap would see Australia turn its back on an expected 37,700 construction job years and 5,000 operations and maintenance job years between 2026-2030.
- A 54 per cent renewable energy cap would result in tens of billions of dollars of lost regional economic activity, an estimated $2.7-3.4 billion in foregone landholder payments for hosting renewable energy assets, and $696 million in lost community and council contributions from projects in host communities.

Methodology for this analysis

- Renewable electricity shares (%) are calculated on the basis of expected generation/output (megawatt hours) in future years relative to projected electricity demand under the Australian Energy Market Operator's (AEMO's) 'Central' scenario in its 2024 NEM Electricity Statement of Opportunities and its 'Expected' scenario in its 2024 WEM Electricity Statement of Opportunities.
- The 54 per cent and 82 per cent scenarios take into account renewable energy assets that are operational, committed or currently under construction.
- In the later years of the 82 per cent scenario (that sit beyond the time horizon of projects currently under construction or committed), estimates of the annual installations have been developed, based on what is required to meet an 82 per cent renewable energy share by the end of 2030.
- Capacity factors of 23 per cent for large-scale solar and 35 per cent for wind projects have been utilised, which are based on current operational averages, drawing on the Green Energy Markets renewable energy plant database.
- The foregone investment value takes into account large-scale solar and wind only. It does not include other renewable power generation technologies or utility scale storage investment. Inclusion of utility scale storage would result in an even higher value of foregone investment.
- Rooftop solar penetration forecasts are consistent across both scenarios and are based on AEMO's Central scenario in its 2024 NEM Electricity Statement of Opportunities and its 'Expected' scenario in its 2024 WEM Electricity Statement of Opportunities.
- Job figures use an employment factor methodology, which relates a measure of energy activity (either cumulatively installed capacity or capacity additions), with construction years, an employment factor and a decline factor. These equations estimate the total number of jobs required to construct/install, operate/maintain and manufacture wind and solar assets.
- Job figures are a cumulative total over the time period from 2026 to 2030 of the jobs required to carry out each scenario during that time period.
- The Clean Energy Council has estimated landholder payment rates per megawatt of capacity by consulting members and verifying these figures with other stakeholders. For wind farms, a range of $5,500-6,500 per megawatt is assumed. For solar, a rate of $1,500-2,500 per megawatt is assumed. A project life cycle of 25 years has been assumed, which captures the total value of estimated payments over a project's indicative operational lifespan.
- Community and council contributions refer to the range of direct contributions made by large-scale renewable energy projects to host communities (such as via community enhancement funds or council contributions). Based on industry research undertaken by the Clean Energy Council – and aligned with the New South Wales Benefit Sharing Guidelines[4] –the average community and council contributions from projects are estimated at $1,050 per MW for wind projects and $850 per MW for solar projects. The estimates of community and council contributions foregone are based on the capacity differences between the 54 and 82 per cent renewable energy scenarios. A project life cycle of 25 years has been assumed.

[3] Assumes 68% of new build to 2030 will be wind, and 32% of new build will be large-scale solar
[4] Benefit-Sharing Guideline, November 2024

The following charts demonstrate the significant reductions in clean energy investment, job outcomes and community benefits under a 54 per cent renewable energy cap.

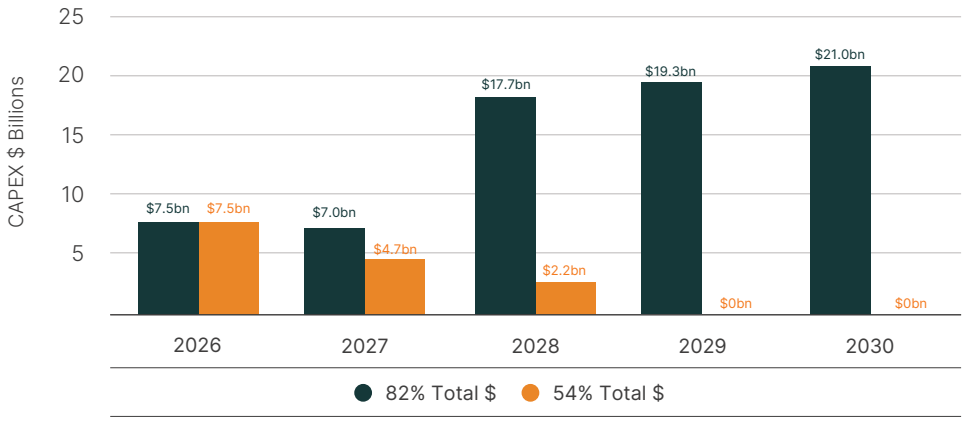

Chart 1 : Comparison of capital investment by scenario

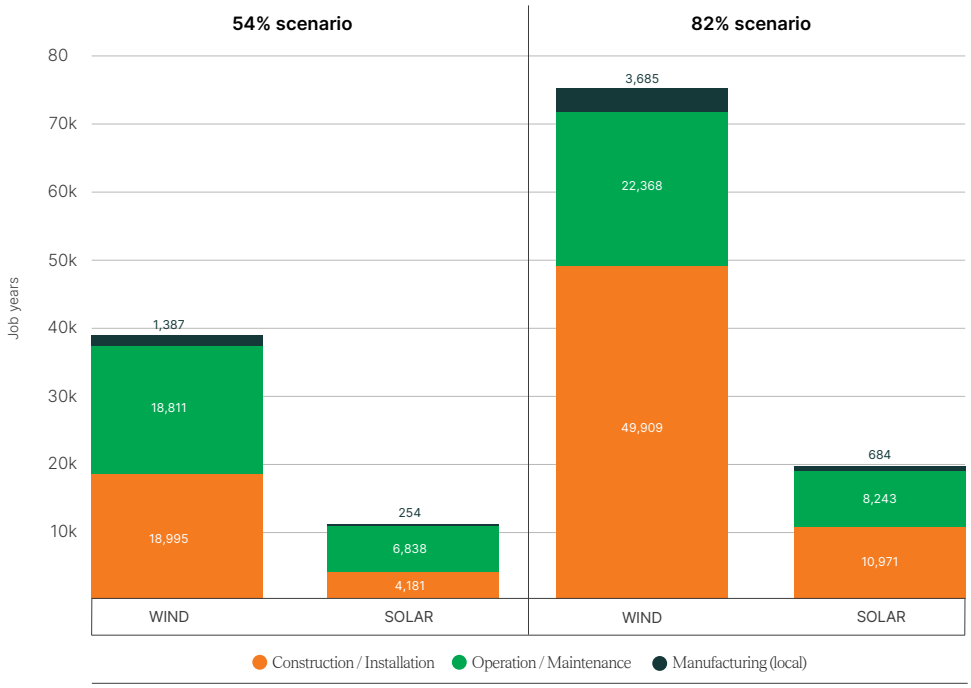

Chart 2 : Comparison of large-scale solar and wind job years, by scenario

	Wind	Solar	Total
Community benefits foregone	$424,417,482	$271,540,717	$696 million
Landholder payments foregone	$2,223,139,192 to $2,627,346,318	$479,189,501 to $798,649,169	$2.70 to $3.43 billion

Table 1 : Estimated foregone contributions to host communities and councils and to host landholders over a project's lifetime under a 54 per cent renewable energy scenario

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