

# Renewable energy sector grows but barriers remain

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South Australia's wind energy per capita is higher than any major country in the world, the report said. Credit: <http://www.flickr.com/photos/twicepix/>

Energy production must shift from fossil fuels to renewable sources within four decades to avoid the most damaging consequences of climate change, a government report has found.

The Climate Commission's report on the state of the sustainable energy

market, titled "The Critical Decade: Generating a renewable Australia," was released as world leaders gathered for [global climate talks](#) in Doha this week.

"Australia has world-class solar and wind energy resources in many parts of the country," said the report, adding that investment in solar photovoltaic (PV) and wind [energy infrastructure](#) could help create jobs, reduce [air pollution](#) and save consumers money.

"Solar PV and wind could be the cheapest forms of power in Australia for retail users by 2030, if not earlier, as carbon prices rise," the report said.

While China has the most installed [renewable energy](#) infrastructure and is the sector's biggest investor, "South Australia's wind energy per capita is higher than any major country in the world and wind is now contributing approximately 26% of the state's total [electricity production](#)," the report said.

Report author and Climate Commissioner, the University of New South Wales' Professor Veena Sahajwalla, said that global investment in renewable energy reached almost \$250 billion in 2011.

"A renewable energy future is inevitable we are headed in that direction worldwide," she said.

"With these [renewable technologies](#), they are only going to cheaper and cheaper."

However, Mark Diesendorf, deputy director of the Institute of Environmental Studies at the University of New South Wales, said the report failed to discuss the barriers to renewable energy sector growth in Australia, which include fossil fuel subsidies to the tune of over \$10

billion a year.

"Obviously they are trying to put a rosy glow on the situation to avoid criticising federal and state governments," he said.

While the federal government funds some demonstration [solar projects](#), there were no real incentives to expand the solar market, he said. Only the ACT government funded medium scale solar power stations.

"At the state level, we have seen Victoria, NSW and Queensland putting in place policies to hold back renewable energy. In Victoria it's now almost impossible to build a new wind farm, so severe are the restrictions on siting," he said.

"NSW has followed Victoria's unfortunate lead to some degree and all three states have cut back on feed-in tariffs for residential renewable energy."

Professor Diesendorf said UNSW research published in the journal *Energy Policy* had found that 100% renewable energy systems (using wind, solar and biomass) could supply the national electricity market with the same reliability as the existing polluting system.

Andrew Blakers, Director of the Centre for Sustainable Energy Systems at the Australian National University, said that grid parity for rooftop-mounted photovoltaics has been reached already throughout Australia for both domestic and commercial retail consumers.

"We do not have to wait until 2030, as projected by the Climate Commission report. It is puzzling that the Climate Commission did not recognise this fact," he said.

Photovoltaic and wind power are likely to be the main sources of new

energy generation capacity for decades to come and parity with the cost of wholesale electricity from new gas or coal fired power stations is likely to be achieved by both wind and solar this decade, he said.

"The traditional Australian electricity industry is under severe pressure from PV and wind, the implementation of energy efficiency measures, and falling demand. The industry may choose to cope by attempting to keep PV out of the market place. Alternatively, it could embrace PV, wind and energy efficiency and rapidly transform itself."

"Large changes are required in both infrastructure and tariff structures as the industry rapidly transforms to clean distributed generation from thousands of [wind](#) generators and millions of rooftop PV systems."

**More information:** [climatecommission.gov.au/wp-co ... es-report\\_lowres.pdf](http://climatecommission.gov.au/wp-content/uploads/2012/11/es-report_lowres.pdf)  
[www.ies.unsw.edu.au/docs/diese ... dorf-simulations.pdf](http://www.ies.unsw.edu.au/docs/diese ... dorf-simulations.pdf)

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