

# Energy from new Australian wind farms cheaper than from new coal or gas plants, report shows

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A wind farm in South Australia

(Phys.org)—A new study has found that in Australia electricity from new wind farms will be cheaper than that from new coal or gas power plants, which overturns the common presumption that renewables are more expensive than coal or gas.

The analysis of Australia's energy options was carried out by a Sydney team belonging to the research company [Bloomberg New Energy Finance](#) (BNEF). The team modeled the prices of electricity from a variety of sources, and found electricity from a new wind farm could be supplied at \$80 (AUD) per MWh, while electricity supplied by a new [gas](#)

power plant would cost \$116, and a new [coal plant](#) \$143.

These prices included the Labor government's [carbon tax](#), but wind was cheaper even without carbon pricing being factored in. The analysis also predicted that large solar photovoltaic installations will be cheaper than coal or gas by 2020, and solar thermal and biomass systems will be at least competitive by 2030.

The costs of renewables such as wind and solar are dropping but the costs of new coal and gas plants are rising, especially as the study found the four major banks in Australia were less likely to finance new [fossil fuel power plants](#) unless an expensive risk premium was included. The prices of coal and gas are also rising because of the carbon tax and export markets, especially for liquid natural gas, pushing local prices up.

The CEO of BNEF, Michael Liebreich, said their findings that electricity from new [wind farms](#) is cheaper than new [fossil fuel plants](#) even in a country like Australia with its vast reserves of coal and gas, and this result "promises to turn the economics of power systems on its head." It also makes it likely that Australia will move increasingly towards investing in renewables and away from fossil fuels in the coming decades, unless the prices of fossil fuels drop and remain low.

Kobad Bhavnagri of BNEF added that new coal-fired [power plants](#) are too expensive in Australia now and therefore no new ones are likely to be built, especially as the carbon price is expected to rise substantially, possibly tripling by 2030 from its current level of 23 AUD per tonne. By the time Australia needs to consider building new power plants (2020-30), renewables will be even more attractive, and new technologies may have been developed to deal with the intermittency problems of these renewable source of power.

At present, electricity from the existing coal and [gas power plants](#) is

cheaper than from new renewable sources because the fossil fuel plants were built in the 1970s and 80s and their construction costs have been paid off. Policies such as the Large-scale Renewable Energy Target will be needed to ensure Australia develops the infrastructure and skills needed to meet the target of 20 percent [renewables](#) by 2020, and to transition to renewable energy as the primary source of power. The current figure is 9.6 percent.

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