

Transitioning to a clean economy could save Australia hundreds of billions, report finds

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Building clean, sustainable power sources would save the Australian economy hundreds of billions of dollars when compared to current policies, a new report from the University of Melbourne has found.

Transitioning to a clean economy and reducing emissions would save the Australian economy \$549 billion over the next decade while at the same time providing a number of social and environmental benefits, according to the Melbourne Sustainable Societies Institute's (MSSI) "[Australia's Clean Economy Future: Costs and Benefits](#)" report.

In the longer term, the potential savings to taxpayers are even greater. Maintaining the status quo—that is, the current trajectory towards a four-degree increase in [global temperatures](#) by 2100—would cost the economy \$762 billion by 2050, blowing out to more than \$5 trillion by the beginning of the next decade.

In contrast, the report finds reducing emissions to zero by 2050 in alignment with the Paris Climate Agreement would cost \$35.5 billion and deliver significant economic and [social benefits](#), including lower risk of doing business, higher agricultural productivity, improved air quality and better biodiversity.

The University of Melbourne's Tom Kompas, one of the report's lead authors, said the costs of emissions reduction are tiny relative to the damages that would be avoided from [climate change](#) as a result of the transition from fossil fuels to [renewable energy](#).

"Our work shows that meeting the Paris target of a 26 percent reduction in emissions by 2030 would result in a 0.14 percent fall in Australia's cumulative GDP from 2019 to 2030 of \$35.5 billion. On the other hand, the potential damages from climate change over the same period with current global and Australian policy would result in more than \$584 billion in losses from infrastructure damage and losses in agricultural and labour productivity.

"The cost of renewable energy is falling very fast and we need to take advantage of this, putting price instruments or renewable targets in place

to reap lower costs for electricity," Professor Kompas said.

Co-author Ellen Witte from SGS Economics and Planning said transitioning to a low-carbon economy "makes complete sense."

"It helps curb emissions, but it also helps Australia compete globally—which may surprise some people. Global investors are increasingly looking to invest in renewables over fossil fuels. Exceptional latent opportunities for renewables exist in Australia and they are seen as a low-risk investment.

"Governments and businesses can drive the transition to a low carbon economy by managing climate-related financial risks and prioritising renewable energy generation, transport electrification and sector-specific options for agriculture and transport," Ms Witte said.

Overall, the report finds cost of emissions reduction is significantly less than the damages of inaction in all scenarios examined, even when taking into account the largely underestimated damages from climate change, and likely overestimated costs of emissions reduction.

Co-author Dr. Marcia Keegan from SGS Economics and Planning said: "Emissions reduction methods have the potential to generate valuable co-benefits for the economy, environment and society, including more comfortable city living, better biodiversity, [lower risk](#) of doing business and more productive farms."

Even when the benefit of reduced emissions (\$7.5 billion) is excluded and conservative assumptions used, the analysis shows that the transition to a low-carbon economy is a sound strategic objective generating (co-)benefits that outweigh [costs](#) 2.8 to 1.

Several options are available to states and territories to transition to a low-

carbon [economy](#), including boosting renewable power generation, electrification of transport, technological innovation in agriculture and carbon sequestration through land use practices. These have been investigated. The cost-benefit analysis shows these options could reduce greenhouse gas emissions by 627 million tonnes from 2020—2075 in Victoria and Queensland alone. This would come at a total cost of \$3.6 billion. The net benefit is \$16.2 billion.

More information: Australia's Clean Economy Future: Costs and Benefits report: [sustainable.unimelb.edu.au/pub ... ralias-clean-economy](https://sustainable.unimelb.edu.au/pub...ralias-clean-economy)

Provided by University of Melbourne

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