

# 'Distributed energy' has power to save billions

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Wide-scale adoption of low-emission distributed energy could reduce the cost of transitioning to a low-carbon future by as much as \$130 billion by 2050, according to a new report released today by CSIRO.

The CSIRO Energy Transformed Flagship report: Intelligent Grid: A value proposition for wide-scale distributed energy solutions in Australia, outlines the potential contribution distributed energy can make to significantly reduce [greenhouse gas emissions](#) in Australia and how these benefits can be realized.

Distributed energy is a term used to describe technologies and systems which provide local generation of electrical power, energy efficiency and management of when and how energy is used (demand management).

For example, a distributed energy system could include a solar panel on a home for [electricity generation](#), more efficient heating and cooling systems, or devices that can balance out [energy demand](#) and supply to reduce [energy infrastructure](#) costs.

The report is the culmination of the Flagship's three year Intelligent Grid project which examined the social, technological, environmental and economic value of widespread distributed energy use in Australia.

CSIRO project leader Anthony Szatow said the results provided a strong economic and environmental case for wider use of distributed energy in

the Australian energy market with enormous benefits for all electricity users in Australia.

"Our modelling results reveal that under emission reduction targets consistent with the Garnaut scenario of global stabilisation at 450ppm atmospheric CO<sub>2</sub>, the present value cost savings (discounted by seven per cent) associated with wide-scale distributed energy use could be as great as \$130 billion by 2050," Mr Szatow said.

"We also found that water used for electricity generation can be reduced by as much as 75 per cent through a combination of distributed energy technology and large-scale renewables.

"Distributed energy technologies are available now and these low-emission local energy options offer an immediate and cost effective response to climate change."

The 592-page report identifies important factors that influence the use of distributed energy relevant to key energy stakeholders including; policy makers, regulators, distribution companies, energy retailers, energy consultants, communities, academics and consumers.

Provided by CSIRO Australia

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