

## Four new angles on our electricity future

**A major report from Australia's first Future Grid Forum – established to develop and explore potential scenarios for Australia's electricity future and support the decision-making process around what comes next – has been released by CSIRO.**



Credit: solarseven/istock

The Future Grid Forum has developed four scenarios that have far-reaching implications for the current and future electricity supply chain and would alter the electricity system in Australia.

Australia's electricity landscape has huge potential for transformation as we move towards 2050, with the greatest changes to be defined by consumer choices.

Recognising this, CSIRO convened a Future Grid Forum last year to develop and explore potential scenarios for Australia's energy future and support the decision making process around what comes next.

The Forum brought together more than 120 representatives of the electricity industry, government and community to inform and inspire the national conversation about the future of electricity in Australia and provide a way forward for the sector, its stakeholders and, most importantly, all Australians.

Forum partners recognised that the electricity system cannot be analysed and optimised by only examining its separate parts.

The result is Australia's first extensive whole-of-system evaluation that encompasses the entire energy chain from generation through to consumption.

Findings from the Forum are presented in a comprehensive report, *Change and choice: The Future Grid Forum's analysis of Australia's potential electricity pathways to 2050*.

How much and in what ways could consumers choose to manage their electricity use? What are the implications for electricity bills and the structure of the electricity sector? How all of this might play out in the decades to 2050? How can we best manage and benefit from the scenarios? These questions are key to the national conversation about electricity.

The four scenarios are not predictions; they are windows through which we can view potential futures for Australia's electricity sector and have been developed through extensive quantitative modelling, analysis and social dimensions research.

The four scenarios that were explored in detail were:

1. **Set and forget:** consumers don't play an active role, preferring to sign up to voluntary 'demand control' schemes.
2. **Rise of the 'prosumer'** (people who want to customise products to suit their needs): eg on-site generation, electric vehicles, decentralisation of supply.
3. **Leaving the grid:** around one-third of consumers completely disconnect from the grid using a mix of solar, gas generation, storage and energy efficiency.
4. **Renewables thrive:** new storage technology supports a 100 per cent renewable scenario for centralised electricity supply.

Forum convenors acknowledge that the future is likely to be a hybrid of the four options and do not endorse any particular scenario.

You can download the Future Grid Forum reports or view infographics on the four scenarios [here](#).

Source: CSIRO

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