



1. NEW RESEARCH: Energy Tech Convergence Accelerating Australia's Economic Transition

- Renewable technologies at a tipping point
- Australian energy sector under pressure as traditional supplies replaced by new energy
- New business models, regulation needed to manage imminent transition

Rapidly maturing technology is converging to change the energy landscape.

A new white paper series by global advisory firm Advisian explores the ways in which the technology is changing our world. Australia could be approaching the zero net emissions target agreed to in Paris within the next decade. However the report author warns that Australian businesses and policy makers must act now to avoid falling behind.

"Australia is awash with energy, both under the ground and from above," says co-author Dr. **Paul Ebert, Global Director, New Energy at Advisian**. "We will feel the effects of the transition particularly profoundly, whether we like it or not."

"While not all firms will be winners in the new energy future, there will certainly be many opportunities for enterprising businesses—be they new entrants or long-standing incumbents—to flourish by embracing the evolution now underway. But this will take resolve, foresight, and good strategic and technical thinking."

The "energy internet" will change our lives

The technological convergence will be accelerated by the internet of things, which will give rise to an "energy internet" – a virtual network of devices that generate, store, and consume energy – allowing individuals to manage their devices and their usage, drawing down or feeding energy back into the grid as required. This data and its potential will give rise to entrepreneurial opportunities for businesses able to create business models of value to the consumer.

"The implications of this new platform and its commercialisation opportunities are unforeseeable," says Dr Ebert, "They will be at least as fundamental to the way we live our lives as the internet itself."

Australia must not be left behind

"Past investment in solar means that today 50% of all solar cells manufactured around the globe contain Australian technology. But we can't rest on our laurels. The convergence could mean the transition happens rapidly and there is the risk that we will lose out if we do not plan to take advantage of the shift, despite our considerable natural advantages."

It is a view shared by **Stephen Porter, Advisian's APAC Managing Director**, who says: "As these technologies converge, Australian businesses and individuals won't need to be convinced that they should consider the environment: they will be too busy focusing on the economic benefits."



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“The timetable outlined in Paris for emissions reductions and target updates appears to align well with the published convergence of technologies, very roughly in the next seven to 10 years. Perhaps that is a coincidence, or perhaps governments who are aware of this evolution are more willing to sign up to targets they see as achievable.”

Technology is maturing and converging

The report details the convergence of a number of different technologies, including solar, energy storage, and the smart energy internet.

- In five years, solar has become a modular, simple, scalable electricity source
- Solar and other renewables are now approaching competitiveness with more traditional technologies, and should be directly competitive by 2030
- Mature battery storage technologies expected to decrease in price by 53% by 2025
- Australians are predicted to own 165,000 electric-only vehicles by 2024–25
- “Smart grid” technology is capable of passing energy between consumers and providers and optimizing usage
- These technologies will combine into an “energy internet” which will affect how we travel, how we live, the way our cities and houses are designed, our fuel supply, attitude to energy efficiency and even how we interact with energy suppliers

[The full white paper, *The New Energy Future: the global transition*, can be downloaded here](#)

Paul Ebert, Global Director, New Energy, Advisian and white paper co-author and **Stephen Porter, Managing Director, APAC, Advisian** are available for interview.

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About Advisian

Advisian is a global advisory firm that provides project and business solutions to clients who develop, operate and maintain assets in the resource, energy and infrastructure sectors. As the independent consulting arm of the WorleyParsons Group, Advisian has significant experience supporting clients throughout the world to develop and deliver projects, by providing technical and advisory expertise.