# Deakin Energy Networks

Connecting industry, government and research for a faster energy transition

deakin.edu.au/deakin-energy-networks



We respectfully acknowledge the Wurundjeri and Wadawurrung people of the Kulin Nation, and the Peek Whurrong people of the Maar Nation, as the Traditional Custodians of the lands on which Deakin University's Burwood, Melbourne City, Geelong, and Warrnambool campuses stand.

We pay our respects to their Elders past and present, and to their Ancestors, and acknowledge their continuing custodianship, care and connection to Country over many thousands of years. We recognise that sovereignty over Country was never ceded.

## Clean energy innovation

Deakin Energy Networks is an initiative to engage industry and government in research, training, and commercialisation opportunities within the transition to clean energy.

Deakin University aims to be a catalyst for positive change for the individuals and the communities it serves. It aspires to be recognised as Australia's most progressive university. Deakin is focussed on delivering impact and has set a "carbon neutral" target by 2025.

#### As a Deakin partner you will have access to a University that:

- ✓ Is ranked in the **top 1% of universities worldwide** and is Victoria's #1 university for educational experience.
- ✓ Is part of a globally connected research community from more than **50 countries**, and has partnerships with more than **500 organisations** across the world.
- ✓ Is a signatory to the **UN Principles for responsible management** (PRME) and the SDG framework and is seen as a forerunner in sustainability and climate change initiatives.
- ✓ Is the home of **Australia's largest campus-based microgrid energy system**, co-located with teaching, manufacturing and materials research and development for the circular economy.
- ✓ Has world-leading institutes, centres, faculties, and schools with world renowned experts and world-class facilities driving innovation in research, teaching and learning.



We aim to create a committed and collaborative network of partners by focusing on the following four pillars:

#### 1. Workforce Development

If we are to transition to clean energy, we must build a skilled, accredited, experienced and agile workforce to meet the demand. There are already forecast shortages of electricians, engineers, energy assessors, line workers and battery installers, and we have to consider workforce needs in the realm of new and emerging technologies.

We are committed to workforce development through tailoring innovative and skill-centric curricula and promoting multiple pathways through short, stackable courses, professional development, and micro-credentials across the regions.

By leveraging Deakin's strong partnerships with industry and other universities, Deakin Energy Networks can professionally develop the energy transition workforce of the future.

#### 2. Energy Systems and Data

Managing energy demand while transitioning to clean energy requires fully informed planning, management, operation and governance. This information comes from the forensic analysis of data.

Deakin excels in engineering and information technology and has an almost unrivalled investment in an onsite microgrid with 7MW of solar panels and the capability of using solar arrays, battery optimisation and integration to replicate a net zero carbon town. Deakin provides digital twinning and sand-boxing services, tests operating models and trains staff in energy generation and management.

Energy systems and data enable a cost-effective, comprehensive and versatile development of the future energy landscape through simulation and optimization. Deakin can guide the needs of industry partners by analysing native data to inform energy system solutions.



#### 3. Manufacturing and Technology

The increasing affordability of new energy technologies is enabling businesses across the world to reduce their energy consumption, switch their energy source, and contemplate a future without fossil fuels.

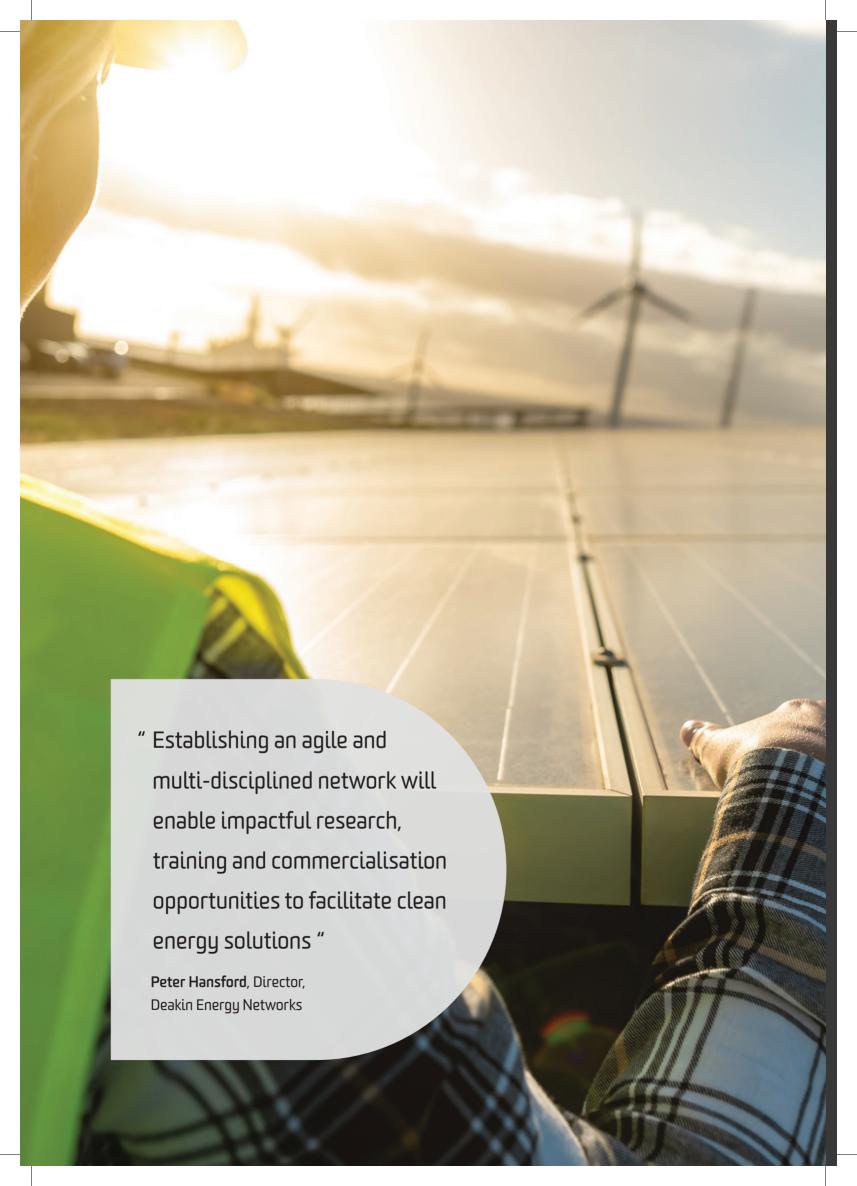
Through the Institute of Frontier Materials, ManuFutures and the REACH program, Deakin is at the forefront of materials development and the circular economy. Nationally significant initiatives like Battery Research and Innovation Hub and Hycel, in conjunction with microgrids can provide industry with greater control over their energy future.

Deakin Energy Networks aim to leverage the expertise within its engineering and IT schools, as well as case studies from the Institute for Frontier Materials (IFM), ManuFutures, Architecture, and Business and Law to offer best-practice insights around manufacturing and technology to industry and academic partners.

#### 4. The Human Element

While businesses and communities can now make choices about where their energy comes from, levels of energy literacy remain low. Factors such as planning, social licencing, heritage assessments, behaviour change, consumer perceptions and cluster development can slow the transition to clean energy too, so we believe The Human Element is a vital strand in Deakin Energy Networks' renewable energy aims.

Deakin's Schools of Economics and Law, the Business School and Social Sciences are focussed on how best to increase real world energy democracy. Deakin's sustainable green energy and circular economy project is informed by consultation with traditional land owners. We also leverage Deakin's expertise in education, the Arts, IT, Architecture and the Built Environment, building on previous projects and bringing new multi-disciplinary perspectives on how humans can adapt to renewables.



### Partner with us

Deakin is the go-to university to enable energy transition. If your organisation has a problem to solve, or if you see opportunities for your business within the renewable energy field, we'd like to hear from you.

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Get in touch today.

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