

**DECARB
HUB** New South Wales
Decarbonisation
Innovation Hub

NSW Decarbonisation Innovation Hub



UNSW
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WESTERN SYDNEY
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AUSTRALIA



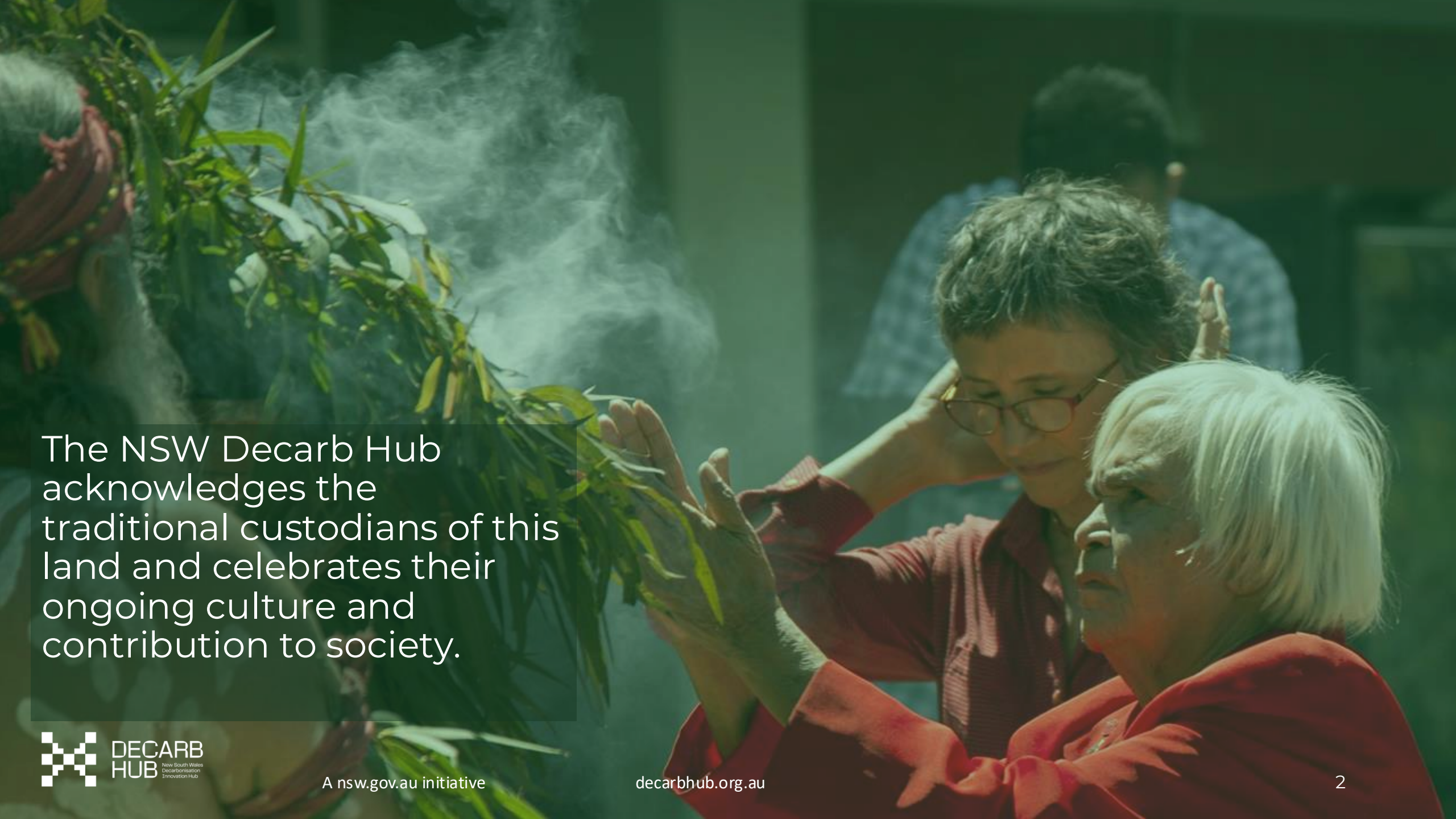
Southern Cross
University



Charles Sturt
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The NSW Decarb Hub acknowledges the traditional custodians of this land and celebrates their ongoing culture and contribution to society.



Decarb Hub Overview

Supporting a **mature and collaborative decarbonisation innovation community**, by fostering the research, development, commercialisation and adoption of decarbonised technologies and services to **reduce emissions to net zero by 2050** and **provide economic benefits**.

The Hub supports the development, demonstration, deployment and commercialisation of technologies from TRL 3 to TRL 6. We aim to bridge the gap between research and viability.



Developing technologies to support and accelerate decarbonisation projects in green powerfuels and chemicals to commercialisation.



Bringing together research, industry, community and government to embed decarbonisation in the next wave of sustainable land practices in NSW. Accelerating the transition to net zero, with co-benefits for people and nature



Accelerating renewable energy solutions and addressing barriers to the uptake of electrification across the economy.



Our Partners



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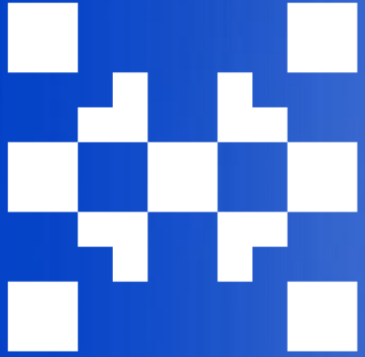


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Electrification and Energy Systems Network

DECARB HUB

Mark Lewis, Business Development Manager



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What is the EES Network?

The Electrification and Energy Systems Network helps to resolve technical, economic, social, regulatory and environmental challenges.

Mission:

To accelerate decarbonisation of energy systems driven by innovation

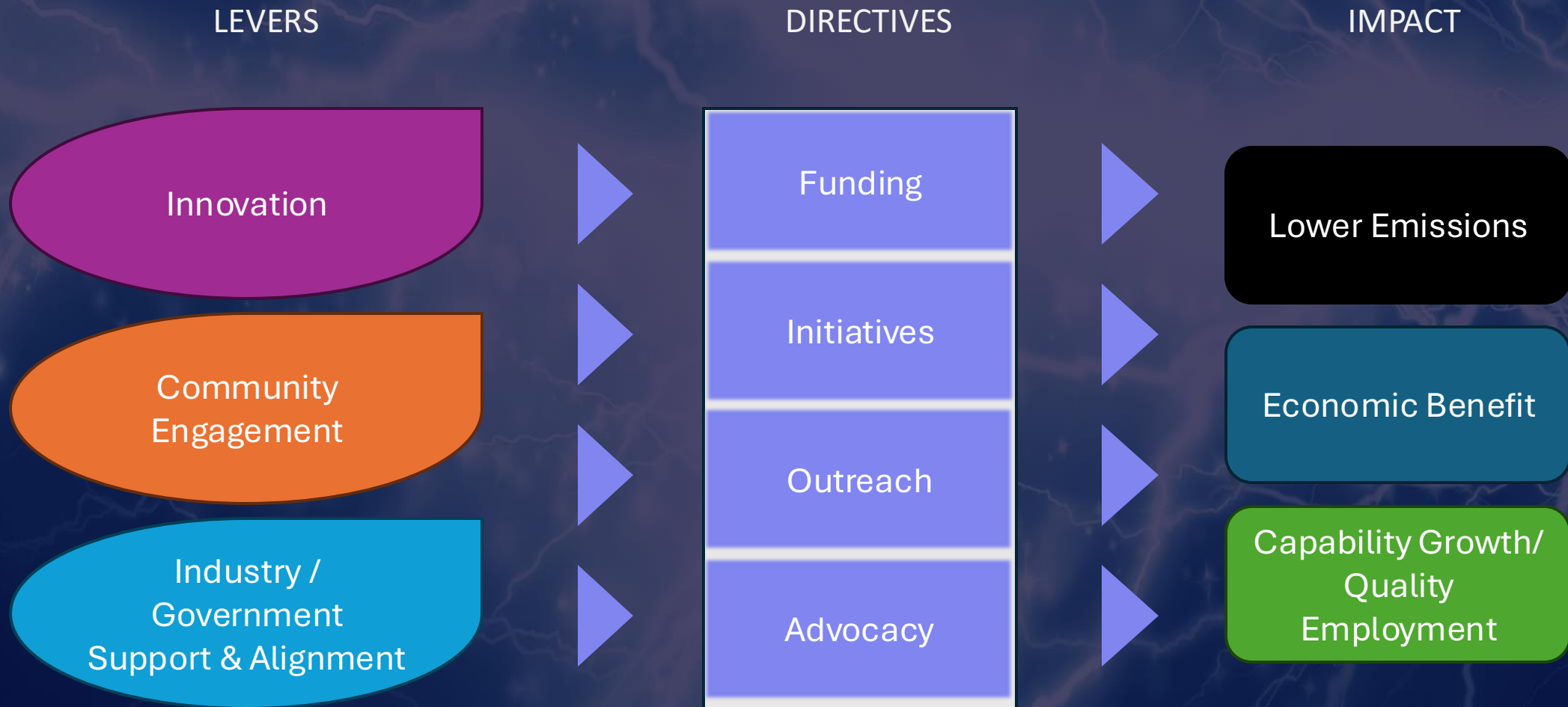
Remit:

Drive innovation from the lab to commercialisation scale and impact

Removing the barriers to decarbonisation for industry, communities and government

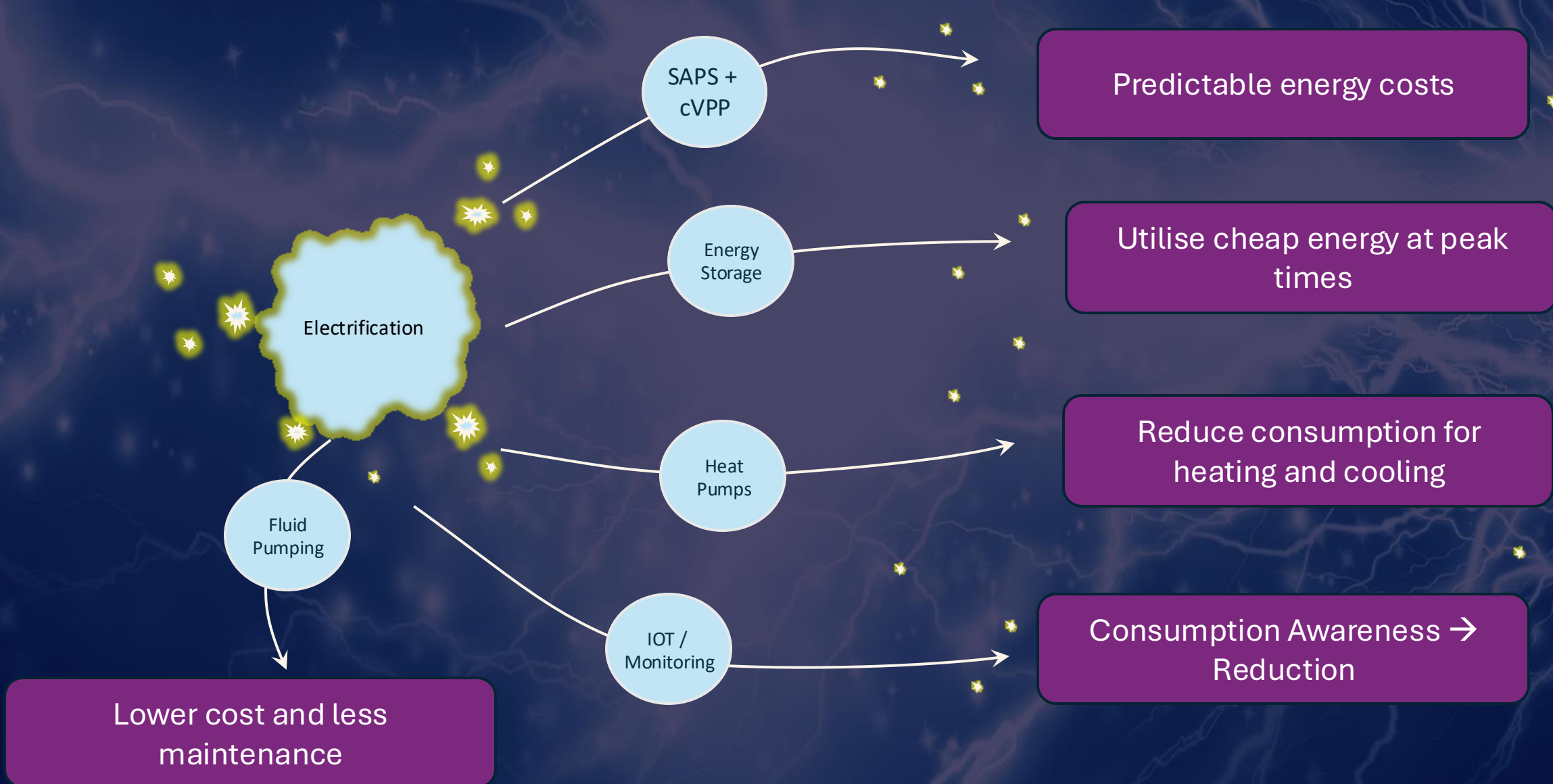


EESN Approach to Impact





Economic Benefits





Community Engagement: Social License Stewardship

Aim: To develop REZ-scale community engagement model that provides a consistent community voice into policy decisions by government, EnergyCo and proponents enabled by an objective trusted party

Approach:

- A. Execute engagement model in REZ to capture community sentiment, provide objective information leadership and evidence-based advice to government agencies and proponents
- B. Roll out proven model across all REZ and communities impacted by offshore wind

Hub Strengths:

- Experience in developing similar models across large-scale communities in transition
- Objective player in the dynamic to facilitate information sharing from credible sources
- Government and industry relationships enable influence of decisions/policy supported by evidence-based insights





Pilot Proposal



Objectives:

- **Validate the model in context of REZ communities**
- **Reduce proponents' individual need for out-reach**
- **Derive evidence-driven insights from community voices**
- **Inject credible voices into the community debates**

Activities:

- A. Statistically representative community surveys
- B. Series of deliberative panels
- C. Series of engagement sessions with stakeholder groups incl proponents
- D. Follow up survey
- E. Cross-community moderated discussions

Partners & Expected Commitment:

- State Government: Appetite for policy influence
- Proponents: Committed to industry-level participation
- EnergyCo: Coordination of community engagement
- Communities: Receptive to different engagement model



Announcing.....

EESN

Seed Grants



Innovation: Seed Grant Scheme

The Seed Grant Scheme is intended to:

- ⚡ Translate electrification and energy systems technologies and innovations
OR
- ⚡ support activities positively impacting impediments within the dimensions of regulations, policy, community transition, or economy, leading to positive decarbonisation outcomes.

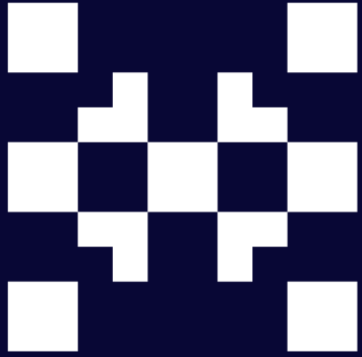
Contribution to project costs: \$50,000 to \$200,000 per project

Duration: 18 months maximum

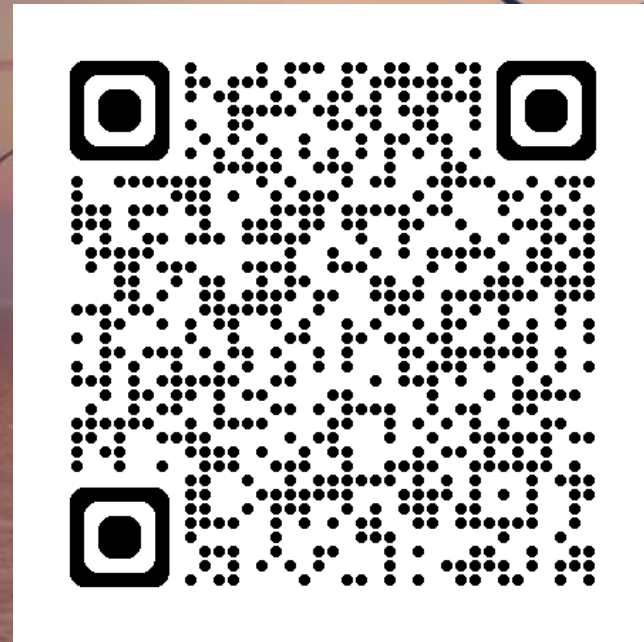
Focus: Solving barriers and adoption issues with Electrification.

For technology-focussed projects, moving TRLs to impact, co-funding from industry, academic collaboration

Deadline: 2 Sept – First Round Closes



Electrification and
Energy Systems
Network
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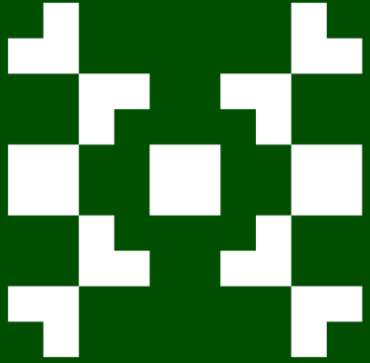


Mark Lewis
Electrification & Energy Systems Network
NSW Decarbonisation Innovation Hub



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Land and Primary
Industries
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LPI Overview

The Land and Primary Industries Network (LPI) consolidates industry, government, community and research expertise in emissions reduction, fostering the **innovation** and growth of commercialisation and technology adoption.



We aim to overcome behavioural and knowledge barriers, and policy and regulatory constraints to assist landholders and companies in adopting decarbonisation solutions.



We lend value in our extensive expertise across LPI members & affiliates, offering sector-specific advice to government, supporting rapid & effective deployment of low-carbon solutions.




In collaboration within our network, we have identified six priority focus areas that cut across LPI's organisational structure and involve linkage to other Networks of the Hub





We are a body that can provide coherent guidance to landholders, industry and government about opportunities that allow them to remain economically viable in transition contexts



Meet the Leads!

Land-based circular economy
(Zhenjun Ma, UoW) 

Monitoring, modelling and assessment
(Belinda Medlyn, WSU) 

Sustainable bioproducts
(Fabiano Ximenes, DPI) 


Digital and precision agriculture
(Jon Medway & Simon Wright, CSU) 


Sustainable native landscapes
(Brian Wilson, UNE) 


Sustainable agriculture and land use
(Warwick Badgery, DPI) 

Sustainable urban transformation
(Mark Tjoelker, WSU) 

Carbon abatement horizons
(Bryce Kelly, UNSW) 

Commercialisation and business development
(Damien Giurco, UTS) 

Capacity building and outreach
(Amanda Scott, SCU) 

Legal and policy frameworks
(Brian Jenkins, DCCEE) 

 Theme  Cross-theme  Impact mission

Each Stream has a Champion who monitors and guides network activities in that stream, and who promotes relevant opportunities and activities both through the Network Committee, and in exchange among the Network Partners and Members.



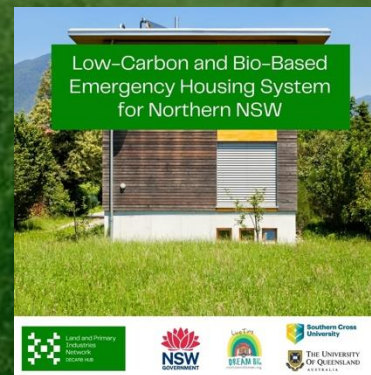
LPI Collaborative Grants 2023 Round



Waste heat recovery and thermal energy sharing towards a Circular Economy

Showcasing a circular approach to waste heat management in the dairy industry.

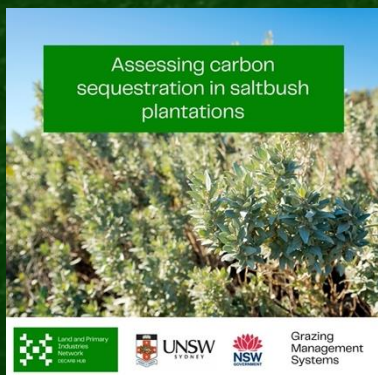
Partners: UoW, GXA, Bega Group
Lead: Zhenjun Ma (UoW)



Low-Carbon and Bio-Based Emergency Housing System for Northern NSW

Develop a pioneering, sustainable, and ultra-low cost prefabricated temporary housing system, made of recovered waste cardboard and under-utilised timber materials.

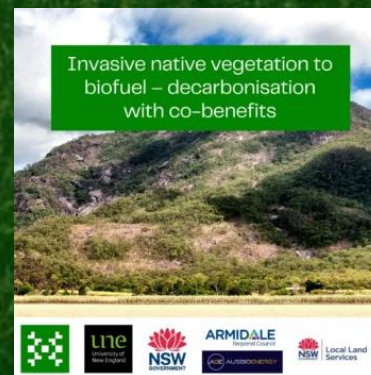
Partners: NSW DPIRD, Container of Dreams (CoD), Southern Cross University, University of Queensland



Assessing carbon sequestration in saltbush plantations

Developing novel remote sensing technology to answer key questions about the biomass quantity and possible extent of saltbush.

Partners: UNSW, DCCEEW, Grazing Management Systems
Lead: Adrian Fisher (UNSW)



Invasive native vegetation to biofuel – decarbonisation with co-benefits

Quantifying and trialling utilising existing invasive native vegetation species biomass to produce biomethanol for the shipping industry.

Partners: AusBioEnergy, NSWDCCEEW, Armidale Regional Council, Northern Tablelands and NorthWest Local Land Services



Our mission

Inform wholistic system designs that enable large-scale uptake of Agrisolar, ensuring climate resilience for farmers and food security for Australians

Our desired outcome:

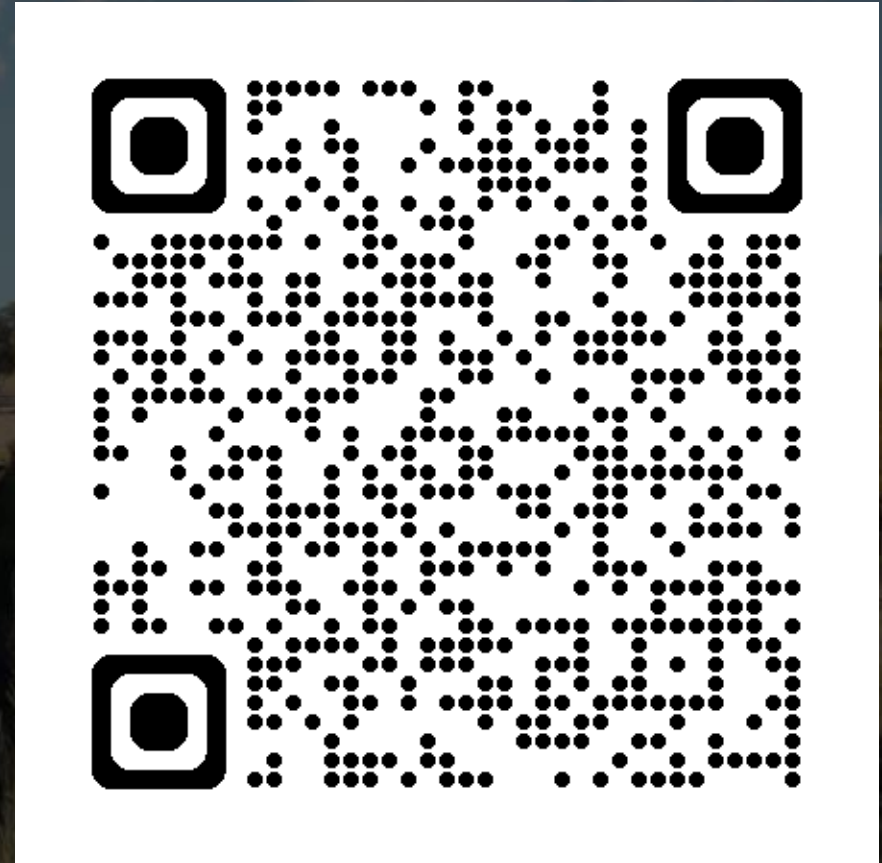
A full exploration of Agrisolar via CRC matures the decarbonisation community, grows the economy through innovative PV solar usage, and contributes to Net Zero emissions through application.

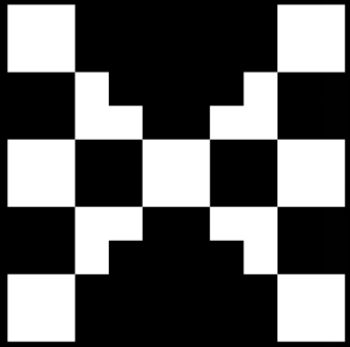


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**LPIN is now on
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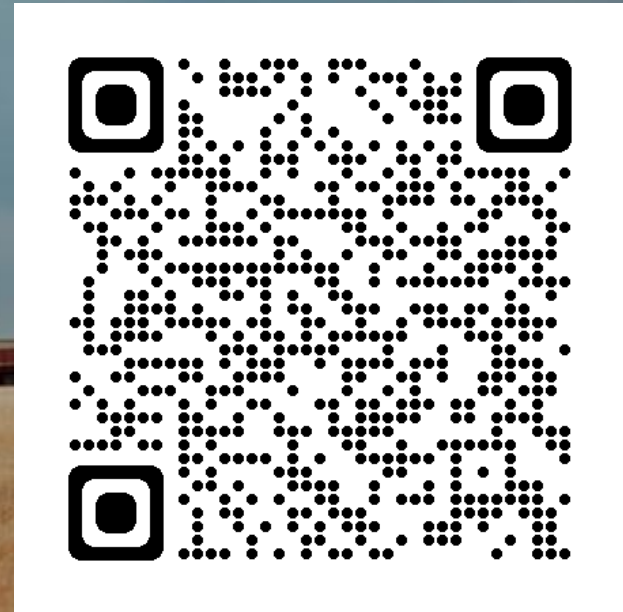
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