

Electrification and Energy Systems Network

DECARB HUB

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UNSW
SYDNEY



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Electrification Network 2024-25 Priorities Plan

NDIS 2023 Ref	Initiative Name	Focus Areas
Future Energy Systems	Consumer Energy Resources (CER) / Distributed Energy Resources (DER)	Flexible demand, demand management, technology adoption market development and social equity
Future Energy Systems	Vehicle to Grid (V2G) / Vehicle to X (V2X)	Grid energy management, energy exchange, flexible demand, market development and circularity.
New generation renewable and storage	Long duration / fast responding energy storage	Mapping technologies to applications, issue mapping, solution optimization and circularity
Future Energy Systems	Clean Energy Power Conversion (includes invertors, convertors, transformers, electrical motor drives, EV battery chargers, grid connection or grid interactive devices, controllers and power optimizers)	Grid stability, energy storage and management particularly batteries, resilience, industrial decarbonisation, local standards development, development of local manufacturing capability and incubation, and concepts that can address the “Future Energy Systems” themes above.
Consumer Sentiment	Renewable Energy Zone Social License Stewardship	Benefits flow, objective credible voices, insights to decisioning, community participation
Future Energy Systems	Consumer Energy Resources (CER) / Distributed Energy Resources (DER)	Flexible demand, demand management, technology adoption market development and social equity



Electrification Network - Initiative Impact Areas

	OPPORTUNITY	DECARBONISATION	ECONOMIC	CAPABILITY BUILDING	WORKFORCE / SKILLS	REGULATORY / POLICY
EESN	Consumer Energy Resources (CER) / Distributed Energy Resources (DER)		\$			
	Vehicle to Grid (V2G) / Vehicle to X (V2X)		\$			
	Long duration / fast responding energy storage		\$			
	Clean Energy Power Conversion		\$			
	Renewable Energy Zone Social License Stewardship		\$			
Joint	Beyond Fossil Diesel		\$			
	Researcher Community + Accelerator Program		\$			



Announcing.....

EESN

Seed Grants



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: Moving TRLs to impact, co-funding from industry

Assessment criteria: Impact to Net-Zero Targets, Project Quality and Innovation, Collaboration, Delivery, Additional Benefits



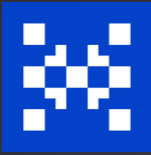
Seed Grant Scheme: Eligibility

The Seed Grant Scheme bids involve either:

1. The development of an electrification or energy systems technology project currently classified between TRL 3 and 5 inclusive; or
2. A means to improve, accelerate or de-risk electrification or decarbonisation of energy systems, across one of the dimensions of regulations, policy, community transition, technical or economy; or
3. A Project aligned with the Eligible Themes as described in the EES Network Priorities Plan

Projects bids must be a collaboration between:

- At least one Industry Body OR Community Organisation OR Government Agency AND
- A partner university of the NSW Decarb Hub



Bids at the ready

Bid Application Timeline:

2024 Applications open	29 July 2024
Applications Close for First Assessment Round	2 September 11:59 AEST
2024 Application Window Close	10 November 2024, or when funds for award are exhausted, whichever is the sooner
Eligibility Review Commences	3 September 2024 and every 3 months where there is more than one submission to assess.
Application Assessment Commences	September 2024
Grants Applicants Selected	Rolling from October 2024
Contracting & Funding	Rolling from November 2024
Outcome Evaluation	From July 2025 (or later, depending on timing of project completions)
Projects must commence by	28 February 2025
Projects must end by	30 June 2026



Joint FY25 Initiatives

NDIS 2023 Ref	NDIS OPPORTUNITY	Network
Agtech and Decarbonisation	Agrivoltaics – effective dual land use for renewable energy and crop production or biodiversity	LPIN, EESN
Clean Sustainable fuels and energy carriers	Fuel Solutions providing alternatives to conventional fossil-based fuels. Supporting decarbonisation of sectors that are challenging to electrify	EESN, LPIN, PFHN
New generation renewable and storage	Identify and progress research and commercialization of energy storage opportunities which offer significant opportunity for the NSW Net Zero economy.	EESN, LPIN, PFHN
Researcher Community + Accelerator Program	Skilling researchers to drive their innovations from the lab to commercialisation scale and impact	EESN, LPIN, PFHN



Long term workplan and large-scale initiatives



Create an ecosystem for an industry in Electrification Technologies –
National Electrification Centre



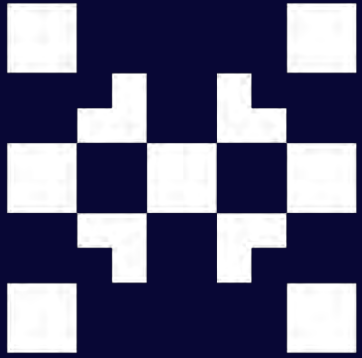
Foster an innovation culture in our higher education sector so that more useful impacts result from the research in our laboratories
ECR Community
Decarb Commercialisation Program



Develop education and training solutions that can quickly deliver the scale of workforce essential to deliver rapid change –
“Understanding the Risks of Lithium-Ion Battery Systems” and “Hydrogen production for Electrical engineers”

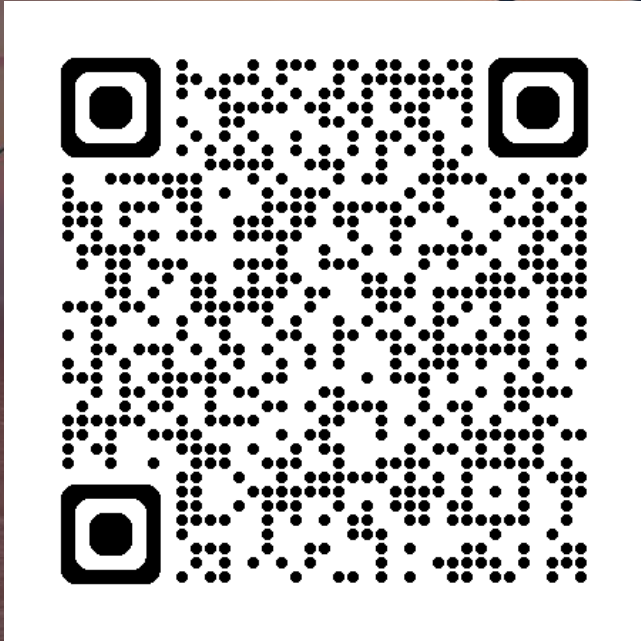


Provide rapid technical support for SME's – a roadside assistance service for technical bottlenecks –
Technology Translation Squad: free support to help overcome technical challenges



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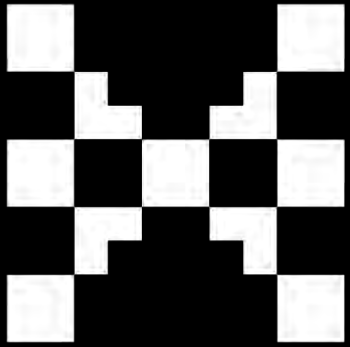


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NSW Decarbonisation Innovation Hub



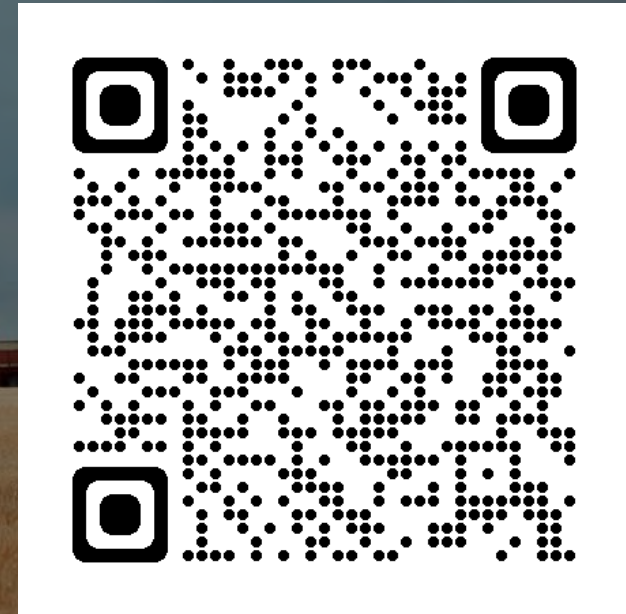
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