TAFE Centre of Excellence Clean Energy Batteries Applied Research Grants Round 1

Grants Opportunity Publishing date and time:	9:00 am AEST, 30 June 2025
Application Portal Opens:	30 June 2025
Application Portal Closing date and time:	11:59 pm AEST 31 July 2025 Note: The TAFE Centres of Excellence may amend the closing date and time at its own discretion by issuing a notice through the Application Portal.
Administering Entities:	TAFE Centre of Excellence Clean Energy Batteries
Enquiries:	If you have any questions, contact: *CleanEnergyBatteriesTCE@tafeqld.edu.au*
Type of grant opportunity:	Open competitive (by application)

These Guidelines contain information for the TAFE Centre of Excellence Clean Energy Batteries Applied Research Grants (Grants) Round 1.

These Guidelines must be read prior to applying, with particular attention afforded to:

- The purpose of the research grants
- The eligibility and assessment criteria
- The grant consideration and selection process
- How successful applications will be notified and the payment schedule
- The reporting expectations of Grantees
- Grantees' responsibilities in relation to the opportunity.

Contents

1. About TAFE Centre of Excellence

TAFE Centres of Excellence (TCEs) are joint initiatives between the Australian Government, and states and territories governments, which supports the development of a coordinated response to delivering a skilled workforce in strategically important industries as defined by the *National Skills Agreement* (the NSA or the Agreement).

The overarching goals of the NSA are to:

- Deliver a national VET system that provides high quality, responsive and accessible education and training to boost productivity;
- Support Australians to obtain the skills and capabilities they need to obtain well-paid, secure jobs; and
- Ensure Australia has the skilled workforce it needs now and into the future, with TAFE at the heart of the VET sector.

In supporting the NSA (Section A112), the TCEs are committed to partnerships with industry, unions, universities, Jobs and Skills Councils, and governments to grow the skills needed by high-potential and strategically important industries and addressing workforce challenges that demand a coordinated response through:

- Providing national leadership in the delivery of skills, education and training, and the dissemination of best practice;
- Developing and championing the innovative delivery of tertiary education, including higher-level pathways, and the use of new technology to enrich students learning;
- Supporting applied research which investigates and provides solutions for real-world problems; and
- Delivering appropriate education and training pathways for regional, rural and remote communities, diverse cohorts, and First Nations communities.

In undertaking the above activity, TAFE Queensland has been selected to lead the TAFE Centre of Excellence Clean Energy Batteries (The Centre), a $20 million joint initiative between the Australian Government and the Queensland Government.

The Centre will focus on growth in the clean energy sector by improving and innovating training for emerging skills needs to deliver a pipeline of qualified workers across Australia.

1.1. Governance

The Centre is guided by Steering Committee that includes representation from TAFE Queensland, the Queensland Government, industry, the university sector and other relevant organisations to oversee the project's implementation and monitor outcomes. Core to the operations of the Grants is the facilitation of partnerships with key stakeholders and communities, which operate on the following principles:

- Collaboration: To inform education and training solutions that address industry, worker, student and community needs.
- Effective governance: Supported by the Steering Committee and sub-committees, and the formalisation of partnerships.
- Inclusion: To ensure accessibility and tailoring to the needs of individuals and communities.
- Transparency: All parties understand their role, expectations, responsibilities, limitations, influence, and the decision-making processes.
- Accountability: The Centre will be responsive and accountable in establishing genuine and respectful partnerships.

2. About the Applied Research Grants

The Grants have been designed to facilitate partnerships between a wide range of stakeholders in the clean energy batteries sector to advance applied research, focusing on innovation, sustainability, and workforce development to address industry needs and inform related education and training.

The objectives of the Grants are to:

- *Encourage collaborative research*: Promote partnerships between and engagement among the key stakeholders in planning, designing and implementing applied research projects that address real-world challenges;
- *Support evidence-based solutions*: Fund research initiatives that generate actionable insights and evidence to inform training and education for the clean energy batteries industry;
- *Enhance capacity building*: Provide opportunities for professional development and capacity building for researchers, educators, and students involved in applied research
- *Facilitate knowledge transfer*: Ensure the dissemination of research findings through publications, conferences, and workshops to maximise the impact and scalability of successful projects; and
- *Promote inclusivity and diversity*: Prioritise research projects that address the needs of diverse communities, including First Nations peoples, to ensure equitable access to training and employment opportunities.

The intended outcomes of the Grants are to:

- Support the delivery of high-quality products, services and systems in the clean energy batteries sector and enhance education and training within TAFE institutions;
- Develop innovative solutions to realise the opportunities and address the challenges in the clean energy batteries sector; and
- Enhance diversity, equity and inclusion in the clean energy batteries workforce.

Grant application which are partnership-based such as an academic institution partnering with industries and/or community organisations, to address the needs of industries in relation to emerging skills training are strongly encouraged.

3. Grant Opportunity Process

Funding Round is designed to achieve Australian and Queensland Governments policy objectives
This grant opportunity is part of the Centre's Applied Research Program, which contributes to the joint objectives of the Commonwealth Department of Employment and Workplace Relations, the Queensland Department of Trade, Employment and Training, and the Centre under the National Skills Agreement.

⬇

Grant opportunity publishes
These Guidelines, the Application Form, template Letter of Offer, Frequently Asked Questions, and all relevant application material are made available on the TAFE Queensland Applied Research Grants landing page. Potential applicants are encouraged to familiarise themselves with the Opportunity Guidelines and prepare for the application.

⬇

Application submission
Upon the opening of the Application Portal, applicants will be able to complete and submit their applied research project proposal, ensuring to address all eligibility and assessment criteria, along with compulsory support material, by the closing date to be considered.

⬇

Grant application assessment and approvals
The Centre considers all applications which meet the eligibility requirements (see Section 5) on an openly competitive basis against the assessment criteria (see *Section 6*). Application assessment is conducted by external, independent assessors. Written recommendations are then provided to the relevant sub-Committees and the Steering Committee for review and endorsement, and to the TAFE Queensland Executive for final approval.

⬇

Notifications of outcome
Successful and non-successful applications will be electronically notified of the outcome of the funding round approximately ten weeks after the closing date.

⬇

Grant Agreement
Successful Grantees are sent a Letter of Offer, which outlines the payment schedule, specific to the nature of the Grant, and projected research outcomes. The Agreement is finalised and signed by both

parties. Failure to agree and sign the Agreement on terms acceptable to TAFE means that the grant offer is withdrawn.

Delivery of Grant
Grantees are provided with the grant monies and commence the delivery of the agreed upon grant activities as per their Funding Agreement. This Grant is monitored and managed through the reporting process (see *Section 11*).

4. Funding Amount and Duration

A total funding amount of $1,000,000 is available for Round 1 of the Grants. Applicants can submit more than one application per round; however, applicants are only eligible to receive funding for one proposal per round. Round 1 Grants Opportunity will be published on 30 June 2025, with Application Portal opening in July for the submission of applications.

Applications must nominate a specific amount of funding which aligns with the Centre's proposed caps and ensure that the nominated funding figure is proportional to the scope, scale and complexity of the proposed research activity. In seeking to support a diversity of projects, TAFE Queensland may offer reduced funding.

Round 1 Clean Energy Batteries Grant funding	Funding Available: $1,000,000 ($700,000 for Stream 1 and 2, and $300,000 for Stream 3) • Clean Energy Batteries welcomes applied research project proposals which range in scale, with the minimum cap $50,000 and the maximum amount available per proposal being capped at $200,000.

Grantees must use the funding amount awarded for the approved grant activities over the duration of the project of up to one year (12 months), otherwise specified in the Letter of Offer. Approved grant activities must be delivered between the project start date and project end date as defined in the Letter of Agreement and Grant Schedule. Grantees must advise the Centre and request approval for variations, if needed.

Grant monies are awarded in three separate payments as per the schedule outlined in the template Letter of Offer, and below:

Project start date	The date that the parties agree for the project start date or October 2025, whichever is later.

Release 1	50% of the total amount of funds awarded are released upon the Grant Agreement being finalised
Release 2	30% of the total amount of funds awarded are released upon acceptance of Report 2: Interim Report (Milestone 3) due approximately 6 months after the commencement of the grant activities, or as otherwise set out in the Grant Schedule
Release 3	20% of the total amount of funds awarded are released upon acceptance of Report 3: Final Report (Milestone 4) due upon completion of the grant activities, or as otherwise set out in the Grant Schedule
Project end date	The date that the parties agree for the Project End Date.

* Note: Payment is typically made within two weeks of signing the Grant Agreement or upon acceptance of any required reports, unless otherwise agreed in writing.

A Grant is an arrangement for the provision of financial assistance as provided by the Centre, under which relevant awarded money is paid to a Grantee, for the intended use of addressing one or more of government policy priority areas, as outlined in the Priority Areas for Grants Opportunity (*Section 7*). Grantees can only use Grant monies for eligible expenditure directly related to the project. Eligible expenditure can include:

- Appointment of temporary contracted labour such as research support staff directly employed for the project activities (tuition and/or scholarship for students are ineligible expenditure, while the employment of students for project is eligible);
- Data collection, analysis and reporting;
- Community engagement, co-design and other stakeholder consultation activities (including domestic travel and accommodation);
- The development and delivery of innovative education and/or training resources for individuals and/or organisations; and
- The promotion and dissemination of the project outputs across multiple channels in collaboration with relevant organisations.

Examples of ineligible expenditure includes, but is not limited to:

- Any activity that does not have a direct link to achieving the outcomes as proposed in the Application Form;
- Existing staff member salaries/wages and oncosts;
- The purchase, planning or maintenance of significant assets (including building infrastructure, construction);

- General ongoing business operation/recurring expenses, including core business activities, business start-up cost, utilities, rent and other organisational costs not directly associated with the project or Grants program.
- Financial costs, including interest and debt financing, the use of any form of security for the purpose of obtaining or complying with any form of loan, credit, payment or other interest;
- Budget contingency and management fee of more than 10% of Grants funding;
- Any expenditure that are already being supported through other sources;
- Costs incurred prior to the date of your Letter of Offer; and
- Other expenditures that are not deemed appropriate use of public resources in accordance with Section 4.3 of the *Code of Conduct for the Queensland Public Service* (e.g., purchase of alcohol).

5. Eligibility Criteria

To be eligible to receive funding:

- Applications must be completed and have been received within the nominated open and closing dates;
- Applicant's affiliated organisation must have a registered Australian Business Number (ABN);
- Applicant's affiliated organisation must be an Australian owned entity with the capacity to enter into a legally binding agreement;
- Applicant's affiliated organisation must have an account with an Australian financial institution; and
- TAFE may be eligible to apply, provided it partners with an industry, university, and/or community organisation, and the proposed research project falls outside the scope of its routine operational activities

You are not eligible to apply if you are:

- An individual;
- An unincorporated association;
- An organisation whose main operations are outside Australia;
- Commonwealth and State Government Departments; and
- Education institutions seeking funding for core business

6. Assessment Criteria

Eligible applications will be assessed against the following criteria. Please note that the amount of detail and supporting evidence you provide in your submission should be relative to the scope and complexity of the research activity outlined and the proposed amount of funding. Applications that evidence innovative partnerships between either community not-for-profit organisations, industry and/or educational institutions are highly encouraged.

Applications are ranked in order of merit against the weighted criteria to determine a rank of:

- Highly Meritorious: Meets all the assessment criteria to a high standard
- Meritorious: Meets the criteria in an above satisfactory manner
- Competitive: Meets the criteria to a satisfactory level
- Uncompetitive: Application is ineligible, does not meet minimum standards, and/or does not represent value with relevant money

Incomplete applications will not be eligible.

Assessment Criterion		Details
1	Overall project design and innovation (40%)	The Grantee must clearly demonstrate how the project aligns with the Grant's overarching objectives and outcomes, as well as the Priority Areas for Applied Research. This includes: • A clear articulation of the project's purpose and relevance to the clean energy batteries sector. • Evidence of the proposal to contribute and build into existing knowledge and practices and avoid the duplication. • A robust plan to engage and collaborate with relevant stakeholders such as industry, education, and community partners, to support the effective delivery of the project, where applicable, in the form of in-kind and/or financial support. • Evidence of how stakeholder input will be embedded into project activities and decision-making processes to ensure relevance, impact, and real-world application.
2	Capacity and capability to deliver applied research project,	The Grantee must outline the capacity and capability of both their organisation and any partner organisations to successfully deliver the project. This should include: • A detailed description of the proposed research methods and timeline.

Assessment Criterion		Details
	including feasibility and practicality (20%)	• Evidence of organisational infrastructure, governance, and resources to support project delivery. • Demonstrated experience in managing and delivering similar applied research or workforce development projects specified in the resumes (Please do **not** include personal information such as your date of birth, home address, phone numbers, or any identification numbers in your resume). • Outline of existing linkages with stakeholders or industry that support feasibility. • Matching funds, while not mandatory, will be highly regarded and should be clearly identified, along with the Letter of Support.
3	Application, scalability and replicability (20%)	The Grantee must demonstrate the project's potential to improve education, training, and workforce development in the clean energy batteries sector. This includes: • Potential to translate research findings into practical outcomes such as new or improved training products, pilot programs, or industry initiatives. • Discussion of how outcomes can be applied across different contexts, with clear potential for scalability and replication across regions or sectors. • Evidence that findings will have long-term utility beyond the life of the project.
4	Efficient and effective use of grant funds (10%)	The Grantee must demonstrate how the project will achieve high-quality outcomes in a cost-effective way, including: • A detailed indicative budget showing cost breakdowns for each project component. • A rationale for how resource allocation will lead to value for money.
5	Risk management and research ethics (5%)	The Grantee must show how they will manage risks effectively, including: • A clear plan to identify, monitor, and mitigate risks, particularly those that may impact delivery timelines or stakeholder engagement. • Where applicable, a strategy to address ethical considerations, including compliance with human research ethics protocols.

Assessment Criterion		Details
6	Closing the Gap in First Nations training and employment (5%)	As part of the Centre's commitment to the *National Agreement on Closing the Gap*, the following applications will receive up to 5% of total weighted score, if they meet one of the following criteria: • Proposed research activity to be led by, or in partnership with, Aboriginal Community-Controlled Organisations (ACCOs); or • One or more of researchers and staff members included in Application, are Aboriginal and/or Torres Strait Islander peoples, as defined in the Commonwealth Department of Aboriginal Affairs.

7. Priority Research Areas for Round 1 Grants

Stream 1: Education and Training

The rapid transition to clean energy and the growing demand for advanced battery technologies require a skilled workforce with specialised knowledge and practical expertise. Back in 2020, Clean Energy Council (CEC) estimated 1,700 people worked in the clean energy batteries (CEB) industry, with the majority being small-scale battery installers. Depending on the pace of decarbonisation scenarios, there will be over 14,000 jobs created in the industry by 2025, with electrical trades workers being most needed occupation. Most of the occupations are already experiencing shortage, and the talent pipeline is not enough to meet the growing demand. In order to meet the increasing workforce needs in the CEB industry, new and innovative education and training should be developed to attract new students and reskill and upskill existing workforce. The education and training should be inclusive and accessible for all students so that disadvantaged and underrepresented groups can participate, including First Nations peoples, women, people in regional and remote areas, people with a disability and those with culturally and linguistically diverse backgrounds.

New Delivery and Pedagogical Models

To remain competitive and sustainable in the context of rapidly evolving CEB industry, education and training must be adaptable to emerging technologies across battery manufacturing and assembly, battery energy storage systems (BESS) and grid integration, and battery recycling and end-of-life management, as well as safety requirements across these battery life cycle. Increasing automation in battery manufacturing requires the workforce skilled in operating, maintaining and troubleshooting robotic systems. AI and machine learning in battery testing and quality assurance requires employees to be trained in data analytics and AI-assisted testing methods. To ensure that the workforce can keep pace with these technological advancements, training must leverage innovative teaching methods such as virtual reality (VR) and augmented reality (AR), to enhance practical training by providing real time simulations.

Applied research that supports the development of new training products for emerging skills needs and the methods for educating and training the evolving technologies will be particularly welcomed. Potential opportunities for applied research may include, but are not limited to:

- What innovative teaching strategies can be used to adapt education and training to the rapid advancements in the CEB industry? For example, what innovative approaches can be used to train workforce in the safe removal, testing, and refurbishment of end-of-life batteries?
- How can virtual and augmented reality tools enhance practical training and skill acquisition for the CEB workforce?
- How can education and training be tailored to learners in regional and remote areas and to address local workforce needs in the CEB industry?
- What partnerships are most effective between education and training institutions and industry in providing hands-on experience for the future CEB workforce?
- How can industry and academic partnerships contribute to the co-development of training products that address current and future skills shortages?

Applied research that involves partnerships among key stakeholders is recommended, including university and research institutions, industry, and VET institutions.

Culturally Appropriate and Safe Training

According to the report published by Jobs and Skills Australia (JSA), the clean energy workforce is characterised by underrepresentation of women, First Nations peoples, people with disability, and overseas-skilled migrants. Increasing participation of the underrepresented groups in education and training should be the first step to achieve greater workforce diversity, leading to innovation and resilience. JSA also found that diverse workforce participation, for instance, gender balance, could contribute to minimising workforce shortage. Therefore, culturally appropriate and safe training is both a moral imperative and a strategic necessity for building a resilient and skilled workforce in the CEB industry.

Applied research that supports the development of culturally appropriate and safe education and training for underrepresented groups in the CEB industry will be welcomed. Potential opportunities for applied research may include, but are not limited to:

- How can education and training be designed to integrate cultural knowledge, practices, and values specific to First Nations peoples?
- How can education and training institutions retain the CEB teachers and trainers from diverse backgrounds?
- How does culturally safe training and education for the CEB influence learner outcomes, including completion rates, and workforce retention?
- How can the CEB industry and education/training providers work together to create inclusive environments that support learners from the underrepresented groups?

Applied research that involves partnership with one or more of the underrepresented groups and/or their advocacy groups is particularly encouraged.

Growing and Retaining Skilled Trainers

As Australia scales up its CEB workforce, the shortage of trainers and teachers in the VET institutions presents a major challenge. The VET trainers and teachers play a crucial role in bridging industry expertise with skills development, ensuring that the workforce is prepared for the technical demands across the CEB industry. However, JSA noted that there are several barriers that limit the supply of skilled trainers and educators, including but not limited to limited incentives and remuneration. If these challenges are not addressed, the industry will face a major bottleneck in its workforce development. Applied research that supports and address the shortages of skilled trainers and teachers in the CEB areas will be highly regarded. Potential opportunities for applied research may include, but are not limited to:

- What recruitment models can successfully attract industry professionals into training and education for the CEB workforce?
- How can short-term industry secondments or "train the trainer" initiatives encourage industry professionals to transition into the CEB training and teaching roles?
- How can joint industry-academic training programs (e.g., co-teaching models, dual-industry roles) improve the supply of trainers in the CEB?

The involvement of existing, former and future trainers to codesign and conduct applied research is strongly encouraged.

Stream 2: Industry Needs and Innovations

For Australia to strengthen its sovereign capability throughout the battery value chain, the CEB industry needs a strategic approach to both lead and adapt to changes. Applied research can assist the industry in addressing technical, operational and workforce-related issues by providing evidence-based insights and practical solutions.

Attracting Future Workforce

While demand for skilled workforce in the CEB industry continues to rise, the existing workforce in relevant industries is ageing faster than new talent is entering the sector. The mature workforce brings decades of expertise, making their retention and knowledge transfer critical to building a sustainable workforce. To future-proof the CEB industry, targeted retention strategies, mentorship programs, and reskilling pathways must be developed to enable mature workers to contribute to the next generation in their training, advisory, and quality assurance roles. These initiatives should be done in conjunction with attracting new workforce into the industry.

Applied research focusing on addressing the challenges of workforce ageing and attracting future workforce will be encouraged. Potential opportunities for applied research may include but are not limited to:

- How can informal and structured mentorship programs enhance the skills of new workforce in the CEB industry?

- How can companies incentivise knowledge-sharing among mature workers to ensure a sustainable talent pipeline for the CEB industry?
- What barriers prevent ageing workforce from transitioning into the VET sector and how can these be addressed?

Applied research that engages with employers, employees, and unions in the CEB and relevant industries is encouraged.

Workplace Culture and Diverse Workforce

A positive perception of a particular industry could shape the new workforce's decision to enter the industry. While the CEB industry is still emerging, there are positive indications that it could benefit from its association with advanced technology and science. An increasing number of female students are studying electrotechnology, engineering, and manufacturing, and are set to transform the scenes of their respective industries. However, the increasing diversity in education and training is yet to translate into the diversity in the workforce and changes in the workplace culture due to the persistent issues such as workplace culture and maternity-related barriers.

Applied research that supports the inclusion and diversity in the CEB industry will be welcomed, with the potential to inform education and training programs. Potential opportunities for applied research may include but are not limited to:

- How could mentorship help increase female representation in leadership role in the CEB industry?
- What best practices can be implemented to increase First Nations employment in the CEB industry, particularly in regional and remote areas?
- What role do apprenticeships, traineeships, and return-to-work programs play in improving workforce diversity in the CEB industry?

Applied research that engaged with the First Nations owned business, peak body for diverse communities, unions, and employees from underrepresented groups is encouraged.

Transition Pathways for Existing Workforce

The transition to a clean energy economy may present risks of job displacement for many workers in emissions-intensive industries. However, given the presence of transferable skills across the battery value chain, the CEB industry could offer opportunities for affected workers to reskill and transition to the emerging industry.

Applied research needs to generate insights into the challenges and incentives for workforce transitions and to support the development of training models and industry partnerships. Potential opportunities for applied research may include but are not limited to:

- How can regional and remote training hubs support displaced workers in areas for the CEB industry?
- How can cultural and knowledge gaps be addressed for transitional workforce to thrive in the CEB industry?

- How can coal and gas companies be supported to create structured transition programs?

Applied research that engages with employees in the emission-intensive industries, unions, and training organisations will be encouraged.

Linking Emerging Skills with Training

The opportunities presented by the CEB industry are driven not only by the existing occupational shortage but increasingly by emerging skills and technological advancements. As the industry rapidly evolves, aligning emerging technical and operational skills with effective and timely training is critical.

Applied research that identifies and maps emerging technical skills directly to training requirements is essential for maintaining the workforce and creating a seamless connection between these skills and training. Potential opportunities for applied research may include, but are not limited to:

- What are innovative technologies and practices in the CEB industry, and gaps in existing education and training?
- What collaborative models between industry and training institutions effectively identify and incorporate emerging technological skills into existing training frameworks?
- How innovative technologies and practices in the CEB industry can contribute to remote and regional areas?

Applied research that engages with industry partners developing new technologies and practices will be encouraged.

Stream 3: Targeted Calls for Research

Stream 3 of the Grants, Targeted Calls for Research (TCR), is designed to stimulate research in a particular area of CEB skills training to the benefit of the industry and VET sector. It complements the broader areas and themes in Stream 1 and 2 by providing a mechanism to respond to emerging needs of skills training and prioritising potential topics according to relative urgency and impact.

Applicants interested in the specific projects should develop and submit a proposal that is clearly aligned with specified objectives, expected outcomes, and suggested approaches provided. For the purpose of rapid translation of research findings into the development of training products and pilot testing, successful grantees in Stream 3 should complete the project within 6 months of the project start date.

Current Practices of Battery End-of-Life Cycle Management

As the clean energy transition accelerates, end-of-life batteries management has become just as important as manufacturing and maintaining them. Given the significant carbon footprint embedded in the production of batteries, recycling is crucial for maximising the battery industry's contribution to the overall net-zero effort throughout the entire lifecycle of batteries. This ensures a sustainable lifecycle by recovering valuable materials and preventing environmental hazards from battery wastes, enabling "urban mining" and circular economy.

Currently, there is no regulatory framework and industry wide standard practice of managing batteries at the end of its lifecycle, especially in relation to safe handling, dismantling, transport and storage. The issues are especially pertinent for the lithium batteries, which are the most commonly used for EVs and energy storage system. Unlike other types of batteries, such as lead acid, the lithium batteries are treated as other hazardous wastes, which is not only an unsafe practice but also an economically missed opportunity.

The proposed objectives

- Better understand current industry practices of managing end-of-life lithium battery energy storage system (BESS) and electric vehicle (EV) batteries.
- Further develop the evidence base to inform best practice and industry standard for end-of-life lithium BESS and EV batteries management.
- Inform the battery manufacturing industry of designing for recycling.
- Better understand qualifications, skills and knowledge required for workforce participating in end-of-life lithium battery management.
- Inform the development of skills training for workforce participating in end-of-life lithium battery management.

The expected outcomes

- Comprehensive overview of priorities and gaps in existing processes of end-of-life battery management.
- A set of clearly defined recommendation for establishing industry-wide training requirements for end-of-life BESS and EV battery management. This should draw as much as possible on existing materials.
- Detailed descriptions of workforce needs, including the required skills and knowledge for different stages of reverse logistics chain (e.g., deinstallation of consumer BESS, automotive repair and dismantling, de-energisation), safe handling during transport/storage to recyclers (e.g., what's needed for fire safety), electrochemical knowledge (e.g., safe handling of electricity), general chemical knowledge to manage hazardous risks, understanding of automotive industry for EVs, knowing where to send end of life batteries.
- Training needs for reusing and repurposing batteries.

Suggested approach

- Literature review and stakeholder consultation to map out existing end-of-life battery management practices in Australia, Europe, US and China.
- Structured interviews and/or focus group with key industry stakeholders including battery manufacturers, BESS operators including residential and grid-scale batteries, battery recyclers, policy makers.

- Surveys and interviews among industry stakeholders to capture workforce capabilities, skills gaps and trainings needs

Building battery workforce in regional areas

Battery Energy Storage Systems (BESS) have been rolled out in regional and remote areas, aiming to augment intermittent renewable energy sources. This inevitably requires building local capabilities and capacities to operate and maintain BESS beyond the construction stage.

While there are energy-related VET qualifications tailored to the unique needs of remote and First Nations communities (e.g. UEE21420 Certificate II in Remote Area Power Supply Maintenance and UET30921 Certificate III in Electricity Supply Industry – Very Remote Community Utilities), they have not been used by learners due to a lack of awareness. Moreover, the deletion of unit from the core qualification offering further discouraged its uptake by First Nations learners, as the unit is considered critical component without which the utility of the qualification is diminished. There are also hardly any training providers with these qualifications on scope (PSO, 2025).

The proposed objectives

- Better understand current clean energy battery training options for learners in regional and remote area, including First Nations peoples.
- Identify systemic barriers to enrolment and completion of battery-related VET qualifications in regional and remote contexts.
- Understand the workforce demand and skills requirements across the lifecycle of BESS, including installation and integration, maintenance, and end-of-life management.
- Inform the development or improvement of training units/modules to incorporate emerging industry needs such as battery recycling, safety protocols, and culturally appropriate delivery methods.
- Inform the building and management of “skill ecosystems” in remote and regional areas for increased workforce mobility and sustainability within the clean energy batteries sector.

The expected outcomes

- Comprehensive overview of current clean energy battery-related training options available for learners in remote and regional areas.
- Detailed descriptions of workforce needs in remote and regional areas, as well as challenges in retaining the workforce.
- Successful cases of innovative skills training tailored to the needs of remote and regional stakeholders.
- A set of recommendations for supporting and scaling regional training delivery, including provider capability, flexible delivery models, and culturally safe practices.

Suggested approach

- Literature review and targeted consultations with regional stakeholders, including learners, employers and training providers, to map out existing clean energy batteries training options for remote and regional learners.
- Co-design a research project with Elders and community members, if a proposed scope is likely to impact First Nations communities, ensuring culturally appropriate engagement, shared decision-making, and respect for Indigenous data sovereignty.
- Case studies of successful and underutilised training programs to identify success factors and barriers.
- Pilot studies of innovative training for the remote and regional learners.

AI-driven battery innovation and emerging workforce

Artificial Intelligence (AI) has been emerging as a transformative force across the battery value chain, from manufacturing and designing to testing and management, as well as disposal and recycling. AI applications are enabling smarter battery management systems (BMS), optimising battery testing through high-throughput methods, and accelerating materials recovery from used batteries.

Given the rapid rollout of small and large-scale battery energy storage systems (BESS) and Electric Vehicles (EVs) across Australia, AI application in operation and maintenance of batteries, as well as in manufacturing and installation will increase. AI-driven innovation, therefore, necessitates a highly skilled workforce equipped with both battery-specific skills and application of AI in battery manufacturing and management.

The proposed objectives

- Investigate current industry adaptation of AI across the battery life cycle and identify implications for workforce skills
- Map existing qualifications and training options for AI application across the battery life cycle
- Define skills, knowledge and capabilities required by learners and trainers engaging with AI in clean energy batteries sector.

The expected outcomes

- A workforce capability framework outlining AI-related skills in elements of the battery value chain.
- Applied learning models that simulate current industry workflows
- Practical recommendations for updating or designing new training products for AI-application in battery manufacturing, testing, and maintenance.

Suggested approach

- Literature review of trends in AI applications in battery technologies.

- Stakeholder consultation with battery and AI industries, training providers to identify current and future skills needs, qualifications, and training gaps.
- Case studies of AI applications in battery industry such as smart BMS systems and AI-enabled battery testing.
- Pilot studies of AI-integrated training that reflect real-world tasks and decision-making process in battery-related roles.

8. How to Apply

Before applying you must read and understand this Opportunity Guidelines document, the Application Form, the template Letter of Offer, and the Frequently Asked Questions document.

These can be found on the TAFE Queensland Applied Research webpage, and within the Application Portal. Any alterations and addenda will be published also via the TAFE Queensland webpage.

To apply you must:

- Familiarise with the Grants Opportunity Guidelines, related application materials, and the application process;
- Complete and submit the Application Form detailing the applied research project proposal within the Application Portal, unless an alternative application method is approved by the Centre prior;
- Address all eligibility criteria and assessment criteria;
- Provide all compulsory support material requested, including resumes[1] for each key personnel demonstrating the track record of research, Budget, Risk Mitigation Plan, and if applicable, the Letter of Support (Partnership and/or commitment for matching fund); and
- Submit the application by 11:59pm AEST 31 July 2025[2].

The Centre recognises and encourages that organisations may want to join together as a group to deliver a grant activity in partnership. In these circumstances, there must be a 'lead organisation' who submits the application for grant funding, with all other members of the proposed partnership to be identified in a Letter of Support.

Each Letter of Support should include:

- An overview of how the partner organisation will work with the lead organisation and any other partner organisations in the group to successfully complete the research project;
- An outline of the relevant experience and/or expertise the partner organisation will bring to the group;

[1] Please do **not** include personal information such as your date of birth, home address, phone numbers, or any identification numbers in your resume.

[2] Please note that any tech support for the Application Portal will close at 4:00pm AEST 31 July 2025

- The roles/responsibilities of the partner organisation and the resources they will contribute (if any); and
- Details of a nominated management level contact officer or Partner Investigator(s).

Applications cannot be changed after the closing date and time. If errors are found, in the application after submission, please contact the relevant TCE. If the applicants' intent is unclear, we may ask for clarification or additional information that will not change the nature of the application. The Centre can refuse to accept any additional information from that would amend applications after the submission closing date/time.

The Centre will acknowledge the receipt of an application within two working days. If applicants require further guidance about the process or are unable to submit an application online via the portal, please contact: *CleanEnergyBatteriesTCE@tafeqld.edu.au*

9. Selection Process

As per Section 5 applications will first be assessed for their eligibility. Only eligible applications will move to the next stage, after which they will be assessed against the weighted criteria set out in Section 6.

Applications which meet the eligibility criteria are assessed on an openly competitive basis against both the weighted criteria, and other applications. This ensures that the awarding of grant monies is allocated based on the quantitative scoring, and qualitative recommendations which document how it compares to other applications.

After this merit-based processes of review, which is undertaken by external, independent assessors who form the Selection Advisory Committee, all outcomes and written recommendations are compiled for reporting. Short-listed applications and written recommendations are presented to the relevant sub-committees and Steering Committee for review and endorsement. Should applications be successful in receiving endorsement, they will progress to TAFE Queensland Executives for final approval.

The Centre reserves the right, in their absolute discretion, to not make any grants, or not award up to the maximum amount of awards available in this round.

The expected timelines for application assessment are as outlined below, however, they are indicative only and may be subject to change depending on the volume and quality of applications received. In the event that clarification is required, the Centre may contact applicants for further information.

Activity	**Timeframe**
Assessment and review	August 2025
Approval of assessment and review outcomes	September 2025

Activity	Timeframe
Notification of outcomes	September 2025
Publish successful Grantees on Applied Research Grants webpage	September 2025
Earliest Commencement Date of Grant Activity	October 2025

10. Notification of Outcomes

The Centre will electronically notify all applicants of the outcomes of the assessment process via their provided email. The Centre is committed to the timely appraisal of all applications in the assessment process to avoid possible inequities and waste which may arise through unnecessary delay.

If you are unsuccessful, a request for individual feedback can be made within 30 days of being notified of the application's outcome through contacting: *CleanEnergyBatteriesTCE@tafeqld.edu.au*

The Centre will respond to requests for feedback in writing within 30 days. The opportunity to receive feedback on unsuccessful applications promotes transparency in the decision-making process and improves the capacity of potential grantees to apply for future grant activities.

In some instances, successful applications may also receive feedback on their proposal. If this is the case, the Project Lead/Chief Investigator will be contacted shortly after the notification of outcomes.

Successful Grantees will be publicly announced on the Applied Research Grants webpage.

11. Monitoring of Approved Grant Activity

Grantees should immediately notify the Centre of events which are likely to affect the delivery of grant activities. In the result of unforeseen circumstances (such as a natural disaster), organisations may need to identify alternative methods of grant activities/research and seek approval from the Centre to support flexibility in the delivery of planned activities/research.

Barring unforeseen circumstances, the Grantee must comply with the following Reporting requirements (templates provided), in accordance with the timeframes proposed and as agreed upon in the Letter of Offer and Grant Schedule.

Milestone	Deliverable	Details
Milestone 1	Grant Agreement	Grantee signs the Letter of Offer containing the Grant Schedule which forms the Grant Agreement
Milestone 2	Report 1 Commencement of	This report will outline the progress achieved on the research project from the date of commencement,

	Research Project Report	including a statement on ethics approval (if required), stakeholder and/or participant engagement to date, and/or perceived or actual risk(s). The submission date for this deliverable is approximately three-months post-commencement of the grant activities as outlined in the Grant Schedule or as otherwise specified in the Grant Agreement.
Milestone 3	Report 2: Interim Report	This report provides a research project progress update on the work undertaken post-submission of Report 1. It should detail any initial results from data collection and analysis, and/or a comprehensive literature review, as well as an overview of expenditures to date. The submission date for this deliverable is approximately six-months post-commencement of the grant activities as outlined in the Grant Schedule or as otherwise specified in the Grant Agreement.
Milestone 4	Report 3: Final Report	This report will provide an overview of the activities undertaken over the duration of the grant, data collected and methods of analysis, key findings, identified areas for future research, challenges and/or learnings, outline of potential legacy impact, complete budget representing actuals which will be used for acquittal, a dissemination plan for findings, and any supporting material. This deliverable is to be provided upon completion of the grant activities as set out in the Grant Schedule, or as otherwise specified in the Grant Agreement.

* Note: The Centre has the right to request further information from Grantees upon review of submitted reports.

11.1. Intellectual Property, Marketing and Publicity

As outlined in the Letter of Offer:

- any publicity, advertising and marketing must adhere to strict marketing and publicity requirements; and
- intellectual property rights developed in connection with the performance of the Grant Activity vest in TAFE Queensland upon creation;

- the Grantee will have a limited licence to publish its research findings produced as a result of the Grant Activity solely for academic purposes.

12. Probity

The Centre will ensure the grant opportunity process is fair and reasonable; runs in accordance with these Guidelines; and incorporates appropriate safeguards against fraud, corruption and unlawful activities and other inappropriate conduct. The Centre commits to the public sector values and duties of honesty, integrity, impartiality, accountability, and transparency.

We demonstrate our commitment to transparency via being open to scrutiny about grants administration and the grants opportunity process. This involves the provision of the reason(s) for decisions and information to relevant government department(s), potential grantees, beneficiaries and the community. Our commitment to transparency provides the assurance that the grant administration is appropriate, that legislative obligations and policy commitments are met, and that our decision(s) are impartial, appropriately documented and reported, publicly defensible and lawful.

This includes processes which ensure a separation of duties where there is no single officer who is responsible for appraising or approving an application for a grant, the declaration of any perceived or actual conflicts of interest, and procedures for financial approval.