

Renewable Energy Generation

Training and Consulting
services for Skills, Safety
and Compliance



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Who We Are

Accredited Training

Thomson Bridge is a Registered Training Provider (RTO 40754) and Global Wind Organisation (GWO) certified training provider.

A National Team

Thomson Bridge's national team of 60 electrical and safety practitioners, engineers and learning & development (L&D) specialists bring a depth of knowledge, ability to communicate, and demonstrated safety and technical leadership.

Thomson Bridge is committed to assisting Renewable Energy Generators in meeting five guiding priorities.

Five guiding priorities: skilling of your workforce, safety of all personnel, safety of equipment, continuity of supply and commercial efficiency.

Our Services include training, practical and easy to use curriculum and learning solutions, electrical work procedures, plans, instructions and arc flash calculations. We provide audits, investigations and HV Authority services.

We are connected across the renewable sector. We work with owners, site managers and contractors during construction, handover, operation and maintenance.

As a leader in education and consulting in the Electricity Supply Industry, we have forged solid relationships with state and federal electrical and safety regulators, transmission and distribution networks and the Australian Energy Market Regulator, AEMO.





High Voltage Operator Training - for Safety, Skills and Compliance

We develop practical and easy to use HV & LV procedures, training and learning solutions:

- To ensure safe and consistent work practices
- Create skilled and competent workers
- Meet regulatory compliance and audit readiness.

Safety Leaders in Renewable Energy

We are passionate about teaching workers how to assess hazards, evaluate risks and implement safety protections to operate safely for themselves, their work party, their assets and the network.

HV Operator Initial and Refresher training

Contextualised to your operating procedures

We deliver HV Operator and electrical safe access training that is contextualised to your Site's plant, procedures and permit to work systems and is mapped to nationally accredited Units of Competency.

Decades of High Voltage industry experience

Our Instructors are experienced HV professionals who are knowledgeable, flexible and committed to the safety of

everyone who works with HV equipment and electrical networks. They have depth of knowledge, ability to communicate, and demonstrated safety leadership.

Supported by engineering qualified, instructional designers

Complementing our experienced Instructors is a team of engineering qualified, instructional designers and illustrators.

Training for Emergency Response, Rescue and First Aid



GLOBAL WIND ORGANISATION

GWO is an industry sponsored organisation that provides training standards recognised world wide. As an accredited training provider Thomson Bridge has been audited by Bureau Veritas to these exacting standards.

Global Wind Organisation (GWO) Accredited Training

Thomson Bridge is an accredited training provider offering GWO Basic Safety Training (BST) and Advanced Rescue Training (ART). We offer courses at approved training facilities in Perth, Sydney, Adelaide and our ART facility at Brooklyn in Victoria, which hosts simulated environments for heights, and a nacelle and hub for rescue in confined spaces.

We are available to deliver courses at your wind farm site.

Our training programs can incorporate your Site's Emergency Response Plan and align to AS3745 -2010 Australian Standard for Planning for Emergencies in Facilities.

Our GWO courses include GWO certificates and national Units of Competency. [Click here](#) for more detail on the Courses.

GWO Basic Safety Training

GWO BST	First Aid
GWO BST	Working at Heights
GWO BST	Fire Awareness
GWO BST	Manual Handling
CPPFES2005	Demonstrate first attack firefighting equipment
HLTAID011	Provide first aid
HLTAID009	Provide cardiopulmonary resuscitation
TLID1001	Shift materials safely using manual handling methods
PUAWHS002	Maintain safety at an incident scene
PUAFER008	Confine small emergencies in a facility
RIIWHS204E	Work safely at heights
UETDRRF007	Provide first aid in an ESI environment
UETDRRF004	Perform rescue from a live LV panel
PUASAR022	Participate in a rescue operation

Choose one of these programs to add an extra day to your GWO Basic Safety Training

Program 1:	RIIWHS202E	Confined Space +
	MSMPER200	Work with Issue Permit +
	MSMWHS217	Gas Test Atmospheres
Program 2:	PUASAR032	Undertake Vertical Rescue
Program 3:	PUAEQU001	Maintain & Test Response Equipment/ Heights Equipment Inspector

GWO Advanced Rescue Training

GWO ART	Hub Rescue, Spinner & Inside Blade Rescue
GWO ART	Nacelle, Tower & Basement Rescue
GWO ART	Single Rescuer: Hub, Spinner & Inside Blade Rescue
GWO ART	Single Rescuer: Nacelle, Tower & Basement Rescue
PUASAR022	Participate in a rescue operation
PUASAR032	Undertake vertical rescue

PowerGrid Training

For renewable plant/site managers who are monitoring their site electrically, and senior decision makers managing renewable portfolio assets.

In consultation with industry and the Australian Energy Market Operator (AEMO), Thomson Bridge is developing training for renewable generators operating within the increasingly complex Australian PowerGrid.

Our network and control room specialists will assist you to be responsive to the requirements of transmission and distribution network owners under your connection agreements and AEMO's directions as it performs the task of managing the electricity markets and system security across Australia.

These modules are intended to prepare operators to handle interactions with AEMO and the networks during normal and emergency operations.

Specific topics include:

- **Network interface** - Interfacing with transmission and distribution networks.
- **Regulations** and obligations of renewable generators to AEMO
- **PowerGrid dynamics** - Understanding the effects your system has on the local and wider networks i.e. voltage and var control, system security, meeting your outputs per your bid profile.
- **Critical event management** - such as network faults, storm events and liaison procedures with multiple operating authorities.
- **Operate, monitor and control HV apparatus** on the network via SCADA control
- **Co-ordinate and direct switching** the HV and LV system on the electrical network (including coordinating switching between operating authorities)

Training options include instructor facilitated workshops, multi party scenarios, self-paced e-modules, backed by virtual classrooms and power grid simulation (in partnership with North American power grid simulation specialist, IncSys Academy).

Project Report

Power Systems
Operators

National Training
Framework



[Click here to learn more](#)

Courses for the Renewable Energy Sector

- Accredited and tailored training founded on industry best practice
- Developed and delivered by a national training team of electrical, renewable energy and safety practitioners
- Supported by engineers, L&D professionals and digital platform and content innovators.

We embrace a modern approach to education - our face to face and blended learning is complemented by flexible delivery via training facilities, digital infrastructure, and content for online experiences.

Click on each of the below tiles to take you to the course details.

The tablet screen shows a grid of 12 course tiles under the heading "Our Courses". Each tile features a representative image and the course title. The tiles are arranged in a 4x3 grid. The top-left tile has "Cancel" and "Done" buttons in the top corners.

Course Title	Image Description
GWO Basic Safety Training	Person in safety gear
GWO Advanced Rescue Training	Person climbing a wind turbine tower
High Voltage Operator	High voltage electrical equipment
UEPOPS428 - Develop HV switching programs	Control room with multiple monitors
PowerGrid Training for Renewable Generators	Person using a tablet in a control room
Authorised Recipient	Person in safety gear working on equipment
Recipient in Charge	Person in safety gear working on equipment
Substation Maintenance	Substation with wind turbines in the background
HV Plant Inspections	Person in safety gear inspecting equipment
Arc Flash Awareness	Person in safety gear working on equipment
High Voltage Awareness	Group of people in safety gear at a substation
Cable Jointing Skillset	Person in safety gear working on equipment

Consulting, Audit & Advisory



Electrical Consultancy

Electrical safety rules, HV and LV switching manuals and instructions, Procedures for HV Installation, Asset Management and Maintenance, Safe Systems of Work, Emergency Response, Arc Flash calculations.

[Read more](#)



Verification of Competency

We can provide onsite independent competency assessments to your company's standards or to a recognised framework to ensure workers ability to carry out tasks or operate plant.

[Read more](#)



Audits

Auditing services for compliance with either regulatory or internal processes, systems audits as part of continuous improvement or engineering audits to evaluate maintenance or work procedures.

[Read more](#)



Advisory

Our subject matter experts and engineers draw on their operational and technical experience to provide independent investigations and short term coverage of roles to support and mentor your HV Operating Authority.

[Read more](#)

Electrical Consultancy

Our Team of electrical practitioners and engineers assist the majority of Australia's renewable sites for the following reasons:

- All renewable generators connect via a high voltage connection to a distribution or transmission network. This necessitates responsibilities under their connection agreements.
- OEMs and Site Managers require safe systems of work, electrical safety rules and management and maintenance plans to meet the expectations of staff, owners and regulators.

Our consultancy services assist renewable generators meet their compliance and operational requirements. Our plans, procedures, reports and calculations are prepared in accordance with applicable legislation and regulation, industry standards and the specific distribution and transmission network's relevant internal policies and procedures.

HV and LV Electrical Safety Rules – procedures for all persons working on, Near, or in the Vicinity of High Voltage Electrical Apparatus, and directly associated Low Voltage Electrical Apparatus.

HV Installation Safety Management Plans - safety installation processes for solar and wind generation sites connecting to electricity networks.

Arc Flash Consultancy – calculations, reports and recommendations for generation assets such as turbines, collector groups and balance of plant.

HV Switching Instructions - for routine switching, faults and ad-hoc switching.

Asset Management Plans and Maintenance Procedures for Balance of Plant – to achieve value from critical assets by managing risk and performance across the asset lifecycle.

Safe Systems of Work – providing a full suite of process diagrams, procedures, instructions, forms to first eliminate, then minimise the hazards and risks on your site.

Contractor Management Procedures - a uniform set of Safe Work Procedures, which contractors must comply with when visiting or working on your sites.

ESMS - Thomson Bridge can develop or review existing Electrical Safety Management Schemes for submission to the Regulator for owners of complex installations.

Audits

We provide:

- Compliance audits in accordance with regulatory or internal processes
- Systems audits as part of continuous improvement
- Engineering audits to evaluate maintenance or work procedures.

Our people are both qualified auditors who hold Lead Quality Auditor (qualifications and industry Subject Matter Experts.

Audit services include:

- High Voltage, Low Voltage and Electrical Safety Management
- Workforce Training and Capability – to ensure skills, safety and compliance
- Transitional Audits for:
 - **End of Warranty period** - to ensure the OEM has maintained plant and fixed all faults
 - **Changeover** of maintenance provider or ending of a contract
 - **Construction** handover – at practical completion
 - **Asset sale** - when a prospective owner needs to do a health check



Advisory - Investigations and HV Operating Authority Services

Our Advisory Services are provided by experienced people with operational, maintenance and safety skills, supported by engineering capability. Together they bring solid understanding of electricity supply, networks, plant and relevant regulations.

Investigations

Our investigations of incidents, near misses and plant failures go beyond immediate and basic technical causes and seek to examine management systems, root causes and safety failures.

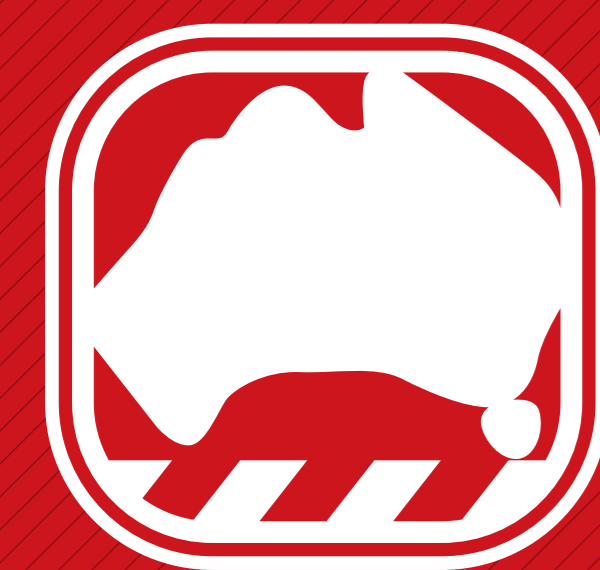
HV Operating Authority support

We provide short term coverage of roles to support and mentor your staff for the following activities:

- Approval and implementation of operational procedures for Electrical Apparatus
- Approval of Switching Instructions
- Coaching and assessing of personnel for authorisation
- Approval of plant outages
- Final approval of plant energisation after a fault
- Declaration of plant Out of Commission
- Approval to commence restoration switching.



Emergency Response Plans



**safe work
australia**

Safe Work Australia requires that persons conducting a business or undertaking (PCBU) must ensure that an emergency plan is prepared for the workplace.

Thomson Bridge prepares contextualised Emergency Response Plans (ERPs) for wind and solar sites to enable your staff to respond to an emergency or disaster. These ERPs define the procedures, processes and management systems to be used for the management of an Emergency, both internal and external and bring it to a safe conclusion.

Our Emergency Response Instructors can assist in developing training programs for your workforce to test your ERP. We can incorporate site based emergency scenario drills to ensure staff understand their roles in an emergency situation, and ensure they have the skills to perform key roles such as plant isolation, confined space and vertical rescue, firefighting and first aid.

eLearning - Design and Hosting Services

A complete design studio capability for the development of eLearning content. Our services include learning pathway design, assessment design, technical and digital content development.

Our hosting service for your corporate induction and training modules – providing access to staff and contractors online from anywhere and on any internet connected device.

Provide the essential records of training completion and currency to ensure compliance for staff and contractor work parties.



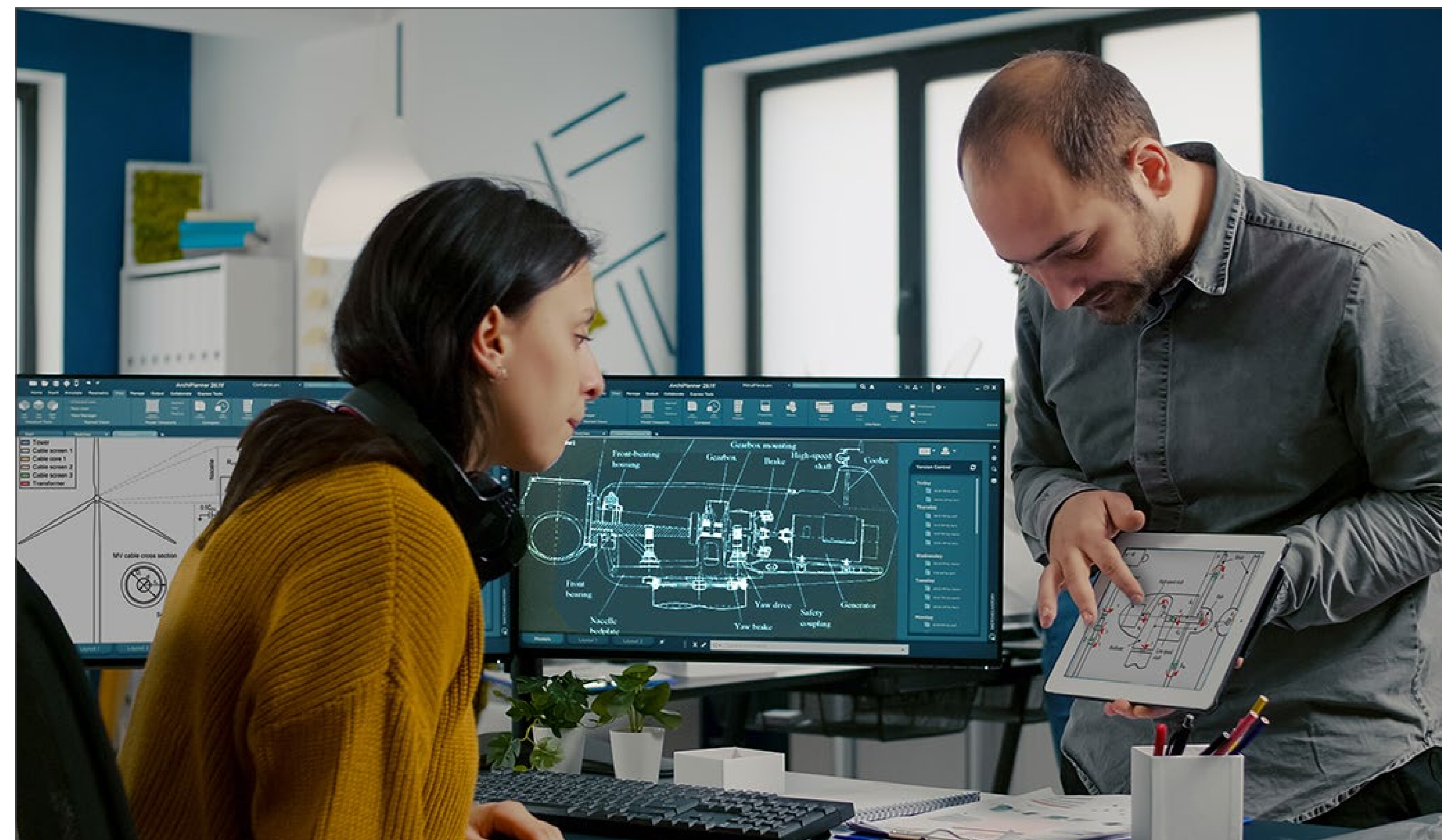
Click here to explore.

Technical Design & Content Development

For a modern approach to education

Our engineers, L&D Practitioners and digital media specialists develop Renewable industry courseware,

technical documentation and learning media that is current, relevant and easy to use.



Curriculum Development

Develop business specific role skill sets, training matrixes, qualification packaging and competency frameworks.



Micro Videos

A full production service for video including scripting, pre-production, on-site filming and post-production editing, including voice-over.

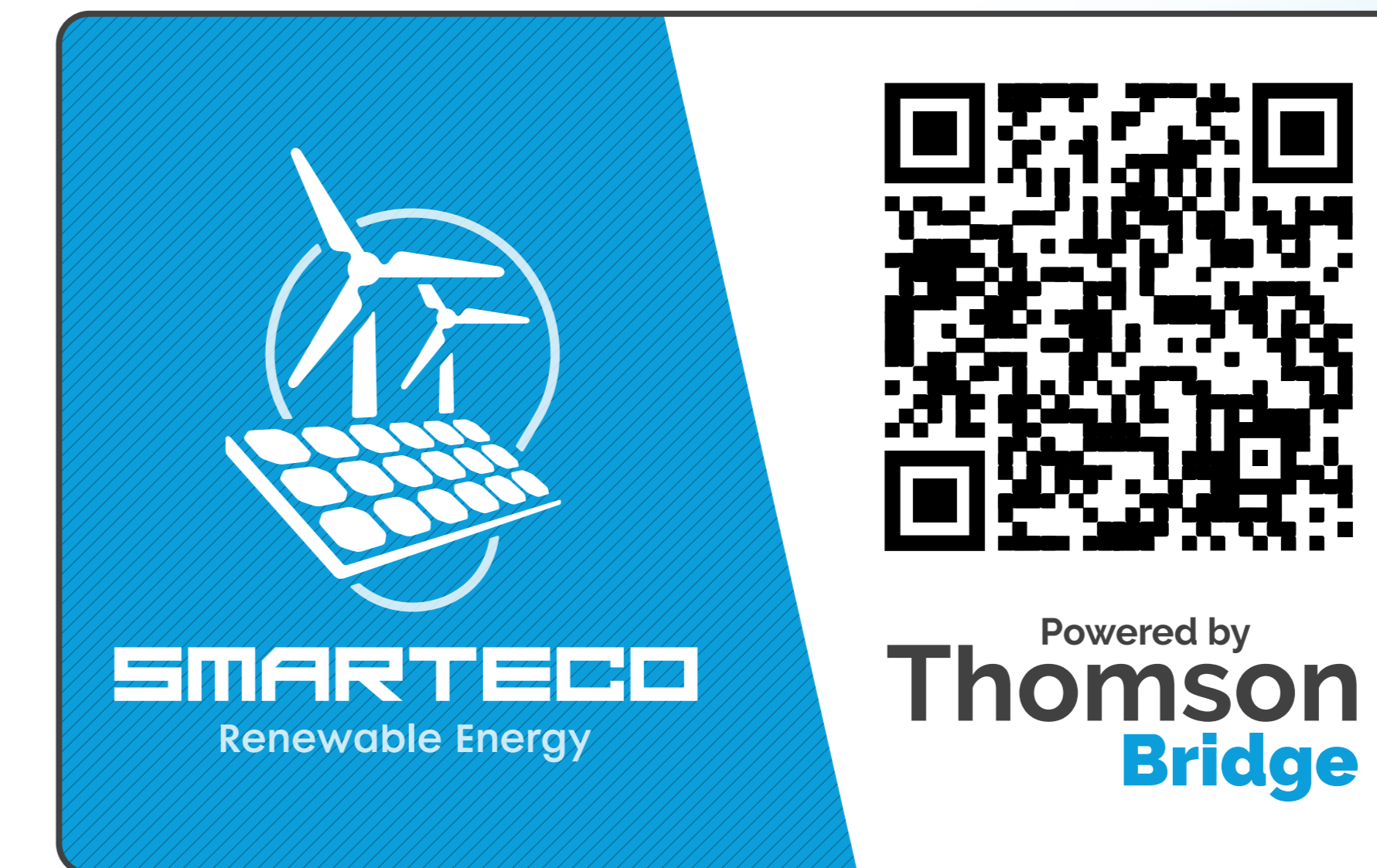


Digital Content

eLearning, video, infographics & 3D imagery. advanced learning technologies ranging from simulations to virtual environments.

Learning and Compliance Management

Our easy-to-use tools enable access to courses and records; tracking against skill sets and training matrices

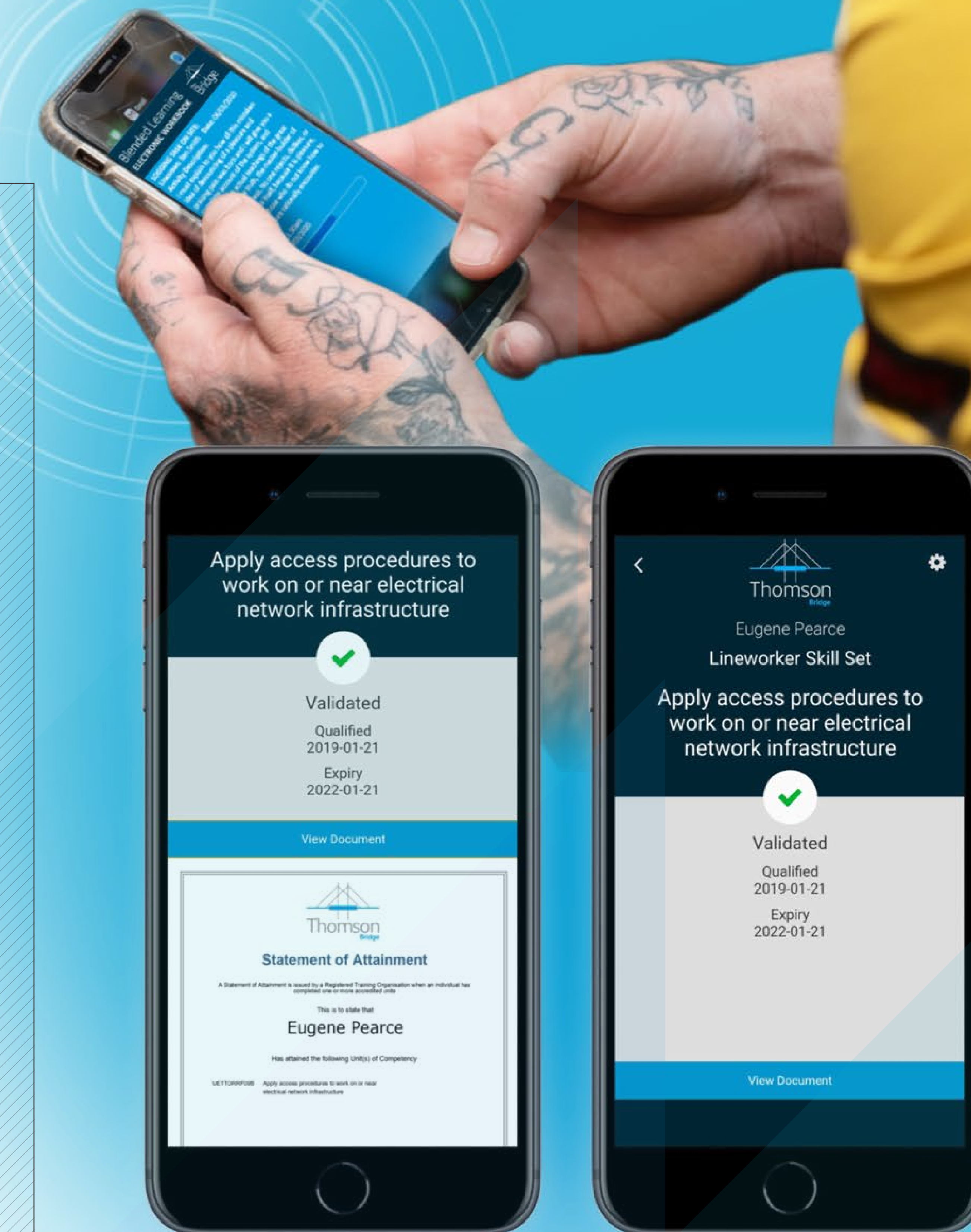


Scan the QR code on the Card above to learn more about **The Bridge**.

Our Learning Management System is called **The Bridge**, it provides:

- **Students and trainers access** to classes, enrolment, learning materials, assessments, progress tracking and certificates.
- **Skill Set & Competency Management** - defines skill sets specific to a company, group or team and manage workers' compliance to this framework
- **Training History** by storing and reporting on individual training attendance and certificates.
- **Reporting** to ensure workforce compliance and management to training needs.
- **Mobile phone App** to enable each employee to easily access and display records and compliance against required skill sets.

- **Worker Cards with a QR code** linking back to the individual's records is also available.
- **Contractor management** enables a company to upload records for a work party and demonstrate compliance against the skills and authorisations required to work on your asset, network or project.
- **Multi media content** including PowerPoint, images, animation, video and software scenario simulation
- **Multiple assessment modes** such as observation checklists, online quizzes and short answer modes and paper based.
- **eLogBook** – to record and validate work experiences and evidence, providing both the trainee and their supervisors with immediate visibility of task/course progress via their smart devices.



Simulation & Virtual Environments

We reach out to innovative companies that offer leading digital and virtual environments for training and competency assessment that solve real world training and operational challenges for the Renewable Industry.



Our Partners

Macquarie University – drawing on two decades of research, the Department of Human Psychology has developed EXPERTise, an on-line software tool to evaluate situational assessment skills for operational environments such as control rooms and field switching. This unique platform provides feedback for personalised training plans.

IncSys/PowerData – leaders in generic and custom PowerGrid simulation platforms for North American networks. Partnering with Thomson Bridge to create effective learning environments to experience normal, abnormal and emergency operation conditions for the Australian context.

And other local and international innovators:

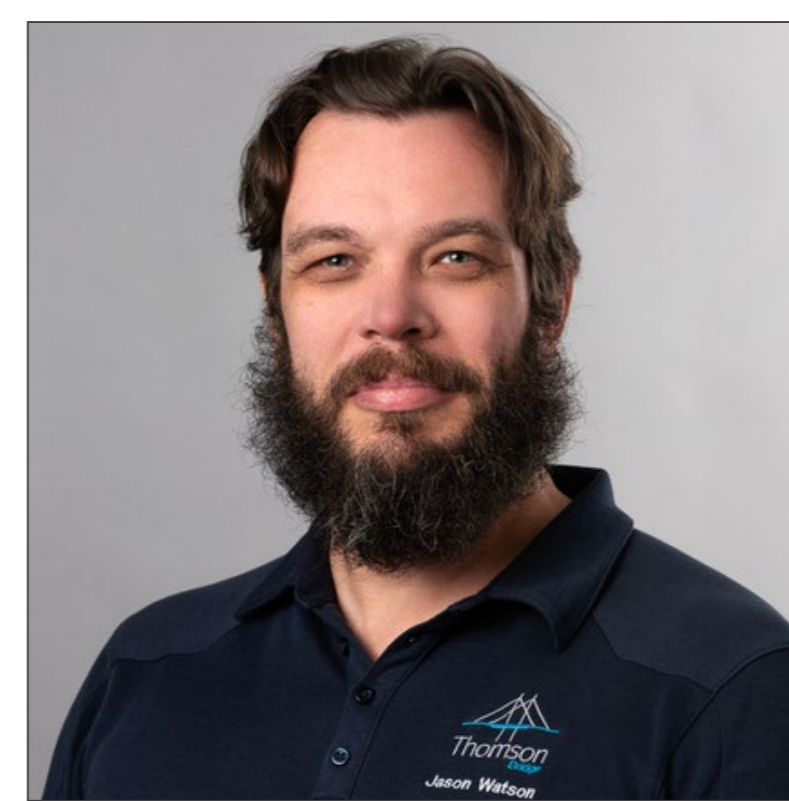
- Flaim – to efficiently train first responders, a virtual reality fire extinguisher featuring a range of fire events including the wind turbine nacelle.
- RealWare - head sets for remote mentoring and assessment.

Meet some of Our Team



Lisa Parkinson
Managing
Director

[Read Bio](#)



Jason Watson
Director, Head of
Advisory

[Read Bio](#)



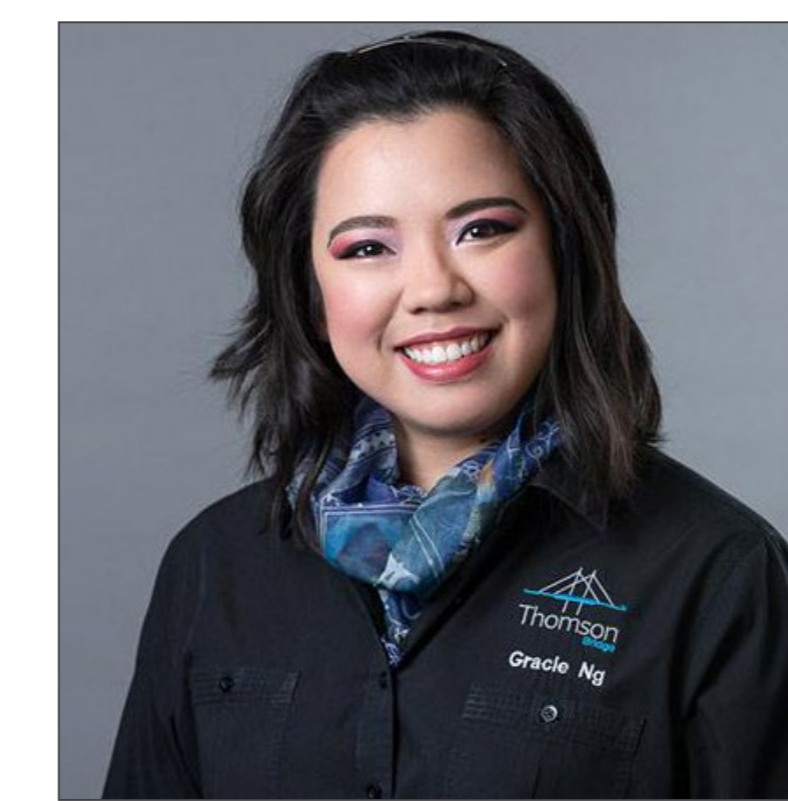
Guy Broadbent
Head of Training
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Brendan Ryan
Team Leader -
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Jos Creemers
Training & Assessor -
Heights and GWO

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Artwork piece by 14 year old Tomoki Harvey July 2021
Take a look at our Art Space on our website:
[Click Here](#)

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