



**Building
safe, skilled
& compliant
workforces for
the electricity
supply & rail
networks**



Introduction

We provide services for safety, skills and compliance

The Electricity Supply Industry (ESI) is undergoing a [significant transformation](#) as the Australian energy market transitions to a broad generation technology mix of thermal, renewables, battery storage and distributed energy generation.

Rail networks are also moving through a fast pace of change with unprecedented investment in rail network infrastructure.

To help organisations meet the demands of the energy and rail industry transition, Thomson Bridge is providing workforce safety, skills and compliance services so that you can maintain a competent workforce; operate with safe and consistent work practices; and meet regulatory compliance and audit readiness.

To maintain currency and relevance, our Subject Matter Experts and engineers undertake research and consultation with state, territory and federal electrical, safety and education authorities and regulators, network service providers and peak industry bodies. We apply this knowledge to building practical and easy to use curriculum and learning solutions, work procedures and instructions for the operation of electrically significant infrastructure. Our aim is improve worker safety, compliance and competence during construction, handover, operations and maintenance.

We work across transmission, distribution and rail networks, thermal and renewable generation, control rooms and the powergrid interface.

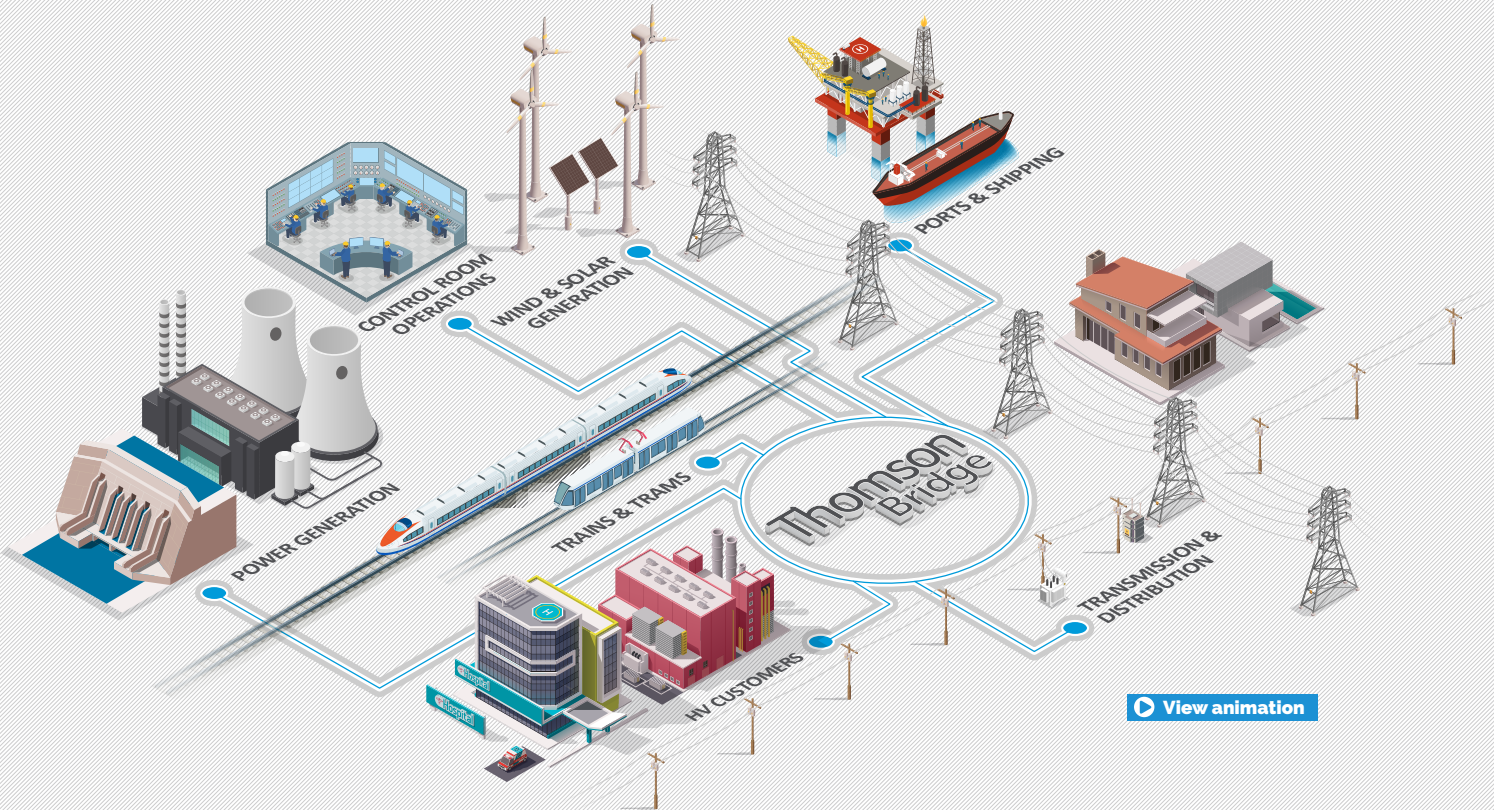
Our national team of ESI SMEs, engineers and learning & development (L&D) specialists bring a depth of knowledge, ability to communicate, and demonstrated safety leadership. They are passionate about passing on to new generations of workers how to assess hazards, determine and evaluate risks and implement sound decisions to operate safely, for themselves, their work party, and the network.



Training
Advisory Solutions
Wind & Solar
Power Generation
Transmission
Distribution
Commercial & Industrial
Trains & Trams

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Training, Management & Learning Systems

Improving essential electrical skills and safety leadership

Our training services foster the development of a safer and better skilled workforce in Australia's rapidly evolving energy and rail network landscape with a modern approach to education.

Our national training team includes energy practitioners, engineers, L&D professionals and digital platform and content innovators.

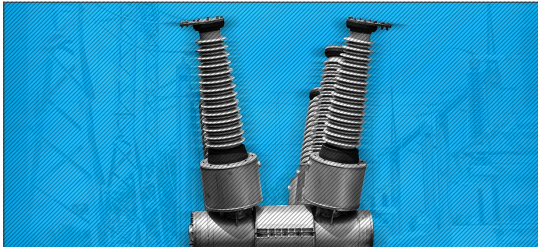
Our face to face and blended learning is complemented by flexible delivery which incorporates access to a range of training facilities, digital infrastructure, tools and content for online experiences.

Our training is founded on industry best practice and delivers improved essential electrical skills and safety leadership with over 150 courses, learning management and RTO services and learning systems offered nationally.

[Read more](#)

Sectors we work with

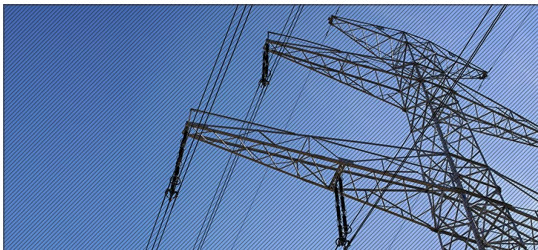
We service the electricity infrastructure sectors that generate, transmit, distribute and use electricity.



High Voltage Operations

Providing electrical skills and safety leadership across renewable and thermal generation, transmission, distribution and rail networks, HV customers and electrical control rooms.

[Read more](#)



Transmission & Distribution

Providing consulting and training services to transmission and distribution networks, and the contractors who build, operate and maintain this vast infrastructure across Australia.

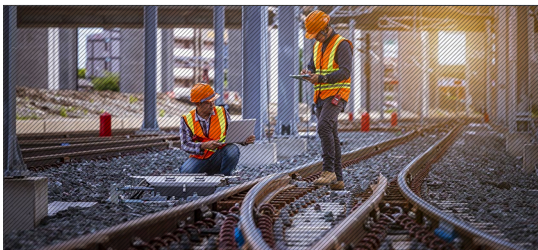
[Read more](#)



Control Room & PowerGrid Interface

Collaborating with experienced power systems controllers to create agile training programs to build confidence in the principles, practices and challenges of today's complex power grid dynamics.

[Read more](#)



Rail

Delivering skills, safety and compliance solutions to our rail network infrastructure clients and their alliance partners during construction, operations and maintenance.

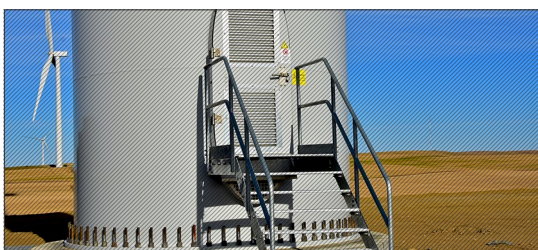
[Read more](#)



Thermal Generation

Providing services for high risk work licenses, HV switching, safe access & permits, role focused technical training, upskilling and verification of competency across Australia's large scale generation sites.

[Read more](#)



Renewable Generation

Providing safety, compliance and skills to site based staff during construction, commissioning, operations and maintenance for large scale wind and solar sites across Australia.

[Read more](#)

Short Courses & Qualifications Delivered Nationally

We offer flexible training delivery and assessment options across Australia. From face-to-face delivery at your site or in our facilities to virtual classroom and remote assessment, we can tailor a solution for you.

[More on Courses](#)



High Voltage & Electrical Safe Access

[Read more](#)



GWO Basic Safety Training

[Read more](#)



Transmission Lineworker

[Read more](#)



Renewable Energy Training

[Read more](#)



New South Wales - ASPs

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Victoria - Electrical Supply Industry (VESI)

[Read more](#)



South Australia - ElectraNet

[Read more](#)



Queensland Electricity Providers

[Read more](#)



Terminal & Zone Substations

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Rail - Trams & Trains

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Cable Jointing

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Boiler & Turbine Operations & HRL Assessment

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ESI Generation Qualifications

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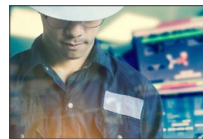
ESI Lineworker Qualifications

[Read more](#)



Power Plant Operations

[Read more](#)



Control Room Operations

[Read more](#)



First Response, First Aid

[Read more](#)



Mining, Defence, HV Customers & Utilities

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Oil & Gas

[Read more](#)



Metro Trains Melbourne

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Designing flexible learning pathways for new and experienced workers

We provide a modern approach to the gaining of Qualifications in the ESI sector.

Our aim is to:

- Offer programs that are effective and flexible for today's learners and their employing organisations
- collaborate with Employers to build capability via mentoring and quality on-the-job experiences for each learner
- drive quality and consistency in training delivery with clear, measurable outcomes; and
- continue to engage with industry bodies and improve the validation of training and learning outcomes.

Experienced worker pathways

Whether the worker has Australian industry experience, or has career experience in another country, our ESI program managers are able to research and map legacy qualifications against current nationally recognised qualifications, prepare gap analysis, apply recognition of prior learning and design custom programs to enable the candidate to achieve the relevant Australian qualification.

Apprenticeship management

We have combined our ESI learning design and delivery expertise with industry collaboration to provide innovative, practical, and sustainable Apprenticeship programs for new entrants across the ESI streams of transmission, distribution, cable jointing and rail.

Partnering and RTO Auspice Services

We can work with your own in-house training professionals to deliver training and assessment services that incorporate company specific contextualised courses aligned to your work procedures and plant; map to Nationally Accredited Units of Competency; and reflect industry best practice.

Essential Tools for Workforce Training Management

We have developed a highly effective learning management system, called **The Bridge**, that enables the scheduling of training, recording of attendance and certification tracking against skill sets and currency.

The Bridge for Learning Systems & Compliance Management

We have developed a highly effective learning management system, The Bridge, that enables the scheduling of training, recording of attendance and certification tracking.

Features include:

- **Certification management** by using The Bridge to define skill sets and matrixes specific to a company, group or team and enable management of workers compliance.
- **A Learning management** system that gives students and trainers access to classes, enrolment, learning materials, assessments, progress tracking and certificates.
- **Training history** which stores and reports on individual training attendance and certificates.
- **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.
- **Contractor management** functionality enables a company to upload the records of a nominated work party and immediately demonstrate compliance against the skills and authorisations required to work on your asset, network or project.
- **Host training and induction services** on behalf of our clients which includes online enrolment, self paced learning and automated certification.
- **Content richness** incorporating a wide range of content including slides, images, animation, video and software scenario simulation content that can be deployed using a variety of classroom and virtual modes.
- **Multiple assessment modes** such as observation checklists, online quizzes and short answer modes and long form paper based.

[Read more](#)

eLogBook

For the tracking of on-the-job training and field based task completions, our clients use the Thomson Bridge eLogBook application on mobile devices for a straight forward way of monitoring workers' progression toward the achievement of their qualifications, licenses and authorisations.

[Read more](#)



Learning Design & Content Development

Our engineers, ESI practitioners and L&D specialists work with industry Subject Matter Experts to develop courseware and learning media that is easy to use and contextualised to your company and operational needs. Our materials are compliant with regulatory requirements and Codes of Practice and reflect industry best practice.

We incorporate the best of traditional learning tools with state of the art digital technologies.



Technical writing

Our technical writers have deep experience in the power industry and can produce documentation, illustrations, 3D models and infographics that are clear, easy to use and compliant.

[Read more](#)



Course design

Drawing on the principles of good instructional design and innovative content development, our Instructional Designers use a proven methodology that delivers a quality product, we call this methodology VOLTS.

[Read more](#)



eLearning

Thomson Bridge provides a complete design studio capability for the development of eLearning content.

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Digital media

We aim to enhance learning experiences through the use of micro videos, 2D and 3D images and animation. Click on the images below, these are just some of the Custom Digital Assets we have created for our clients.

[Read more](#)



Virtual assets

Thomson Bridge partners with innovative companies that can produce high end virtual reality products and simulations.

[Read more](#)

View some of our Assets

[Click here](#)





Consulting, Audit & Advisory Services

For safety, compliance & consistency

We offer a range of consulting and advisory services to support best practice in managing HV networks, maintaining electrical safety and building safe and competent workforces.

This starts with our solid understanding of the Australian regulatory environment for HV and LV operations and electrical safety and the practical nous to ensure systems are both compliant and practical.

Our Subject Matter Experts have a deep understanding of energy networks and a passion for sharing their knowledge of safe

operating, risk analysis, procedures and industry best practice. These professionals have been recruited for the depth of their knowledge, their ability to communicate, and their demonstrated safety leadership.

Our Learning & Development professionals understand the obligations and challenges of maintaining a skilled and competent workforce in the ESI sector. These skilled practitioners offer a range of services to assist you in analysing, designing and implementing quality and cost effective Learning programs that are consistent with industry and regulatory guidelines.

[Read more](#)

1. Engineering Consulting and Advisory



Our engineering services are founded on industry best practice and continual consultation with industry and regulatory authorities. Our reports, calculations, procedures, plans, audits and reference guides are customised to provide our clients with safe and consistent work practices, regulatory compliance and audit readiness.

[Read more](#)

Electrical Operating & Safe Access Procedures

We prepare HV and LV Electrical Safe Access Procedures across generation assets, utilities and HV customers which are prepared to be consistent with:

- State Acts, Regulations and Codes of Practice
- Company installed equipment and manufacturers manuals
- State Connection Guidelines for High Voltage Connections and Embedded Generators.

[Read more](#)

Switching Instructions

Our team develop libraries of Switching Instructions for routine switching, faults and ad-hoc switching as required.

We also train and mentor participants in the preparation of Switching Instructions in line with actual requirements for your site during energisation and outages.

[Read more](#)

Arc Flash Analysis

Our electrical engineers prepare arc flash calculations, reports and recommendations for owners and operators of sites across the country. We aim to provide practical and actionable advice that maximises a safe operating environment and work practices.

Our engineers utilise the ETAP AC Arc Flash Analysis software to perform the assessment of arc flash hazards and incident analysis.

[Read more](#)

Documentation Services

We support our clients through the design and development of technical documentation to contribute to:

- your work place safety for staff and contractors
- your compliance requirements for networks and regulators
- the capture of valuable work methods and instructions.

Documentation services include:

- Policies – to guide decisions and achieve consistent, rational outcomes
- Practice Guidelines – industry publications developed in consultation with clients, peak industry bodies and regulators
- Procedures– for operational and maintenance activities
- Plans - for organisational and site-based activities
- Processes – process maps, diagrams and posters
- Forms – contextualised forms or templates
- Work instructions – for performing tasks with reference to procedures, technical manuals and company knowledge.

[Read more](#)



Safe Systems of Work

Safe Systems of Work incorporate policies, procedures and instructions to ensure your workers operate safely and your business is compliant.

Our easy to use documents enhance the confidence of workers, regulators, customers and the communities within which you operate, and cover key areas:

- Work Health and Safety Policy
- Management responsibilities and structure
- Training and competency
- WHS and company inductions
- Risk management
- Safe work methods
- Electrical work (HV and LV)
- Site safety
- Subcontractor management
- Emergency response procedures.

Thomson Bridge utilise the ISO55001 Asset Management standard as a benchmark, as well as the other ISO standards 9001 (quality), 14001 (Environmental) and 45001 (Safety).

[Read more](#)

Balance of Plant Management & Maintenance Plans

Our technical team members have extensive experience in developing Asset Management and Maintenance Plans for renewable generation assets and their Balance of Plant.

These plans provide the roadmap for achieving value from critical assets by optimising cost, managing risk and performance across the asset lifecycle.

[Read more](#)

Emergency Response Plans

SafeWork Australia requires that persons conducting a business or undertaking (PCBU) must ensure that an emergency plan is prepared for the workplace. Our ESI experts can develop detailed site- specific emergency response plans aligned to AS3745 – 2010 Australian Standard for Planning for Emergencies in Facilities.

We can also design and facilitate scenario based emergency response training events.

[Read more](#)

Effective Risk Control Measures





HV Operating Authority (HVOA)

Our Electrical Subject Matter Experts have held key roles in networks for the performance of critical electrical processes. We can 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
- Authorisation of personnel
- Approval of plant outages
- Final approval of plant energisation after a fault
- Declaration of plant out of commission
- Approval to commence restoration switching.

[Read more](#)

Incident Investigation

Thomson Bridge brings industry expertise combined with incident investigation experience to meet our client's needs.

Our experts have decades of hands on experience in the electricity supply industry, networks, plant procedures and regulations.

[Read more](#)

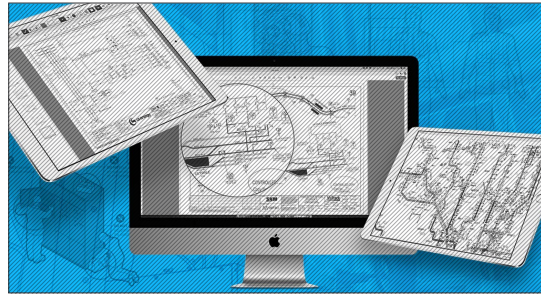
Compliance & Engineering Audits

We can assist you with 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. Our people are led by Subject Matter Experts that hold Lead Quality Auditor (BSB51615) qualifications.

[Read more](#)



2. Learning & Development Consulting and Advisory



Skills Matrixes

We work with electricity and rail networks and asset owners to develop Competency Matrixes and Skill Sets for skills, safety and compliance. Skill Sets include qualifications, compliance training, authorisations, licenses and inductions, and are consistent with:

- Specified electrical safety management systems and procedures
- State and Federal Regulatory requirements and Codes of Practice
- Company policies and procedures.

[Read more](#)

Competency Management

We have expertise in delivering competency consulting across the ESI from line workers to control room operators working in complex and high consequence environments.

Our L&D specialists work in consultation to develop detailed frameworks including job role mapping and industry benchmarks that best fit and future proofs the organisation.

[Read more](#)

Skills & Training Health Check

A straightforward way to check if you are effectively managing the risks around training in your workplace.

[Read more](#)

Training Needs Analysis

We conduct a variety of TNA to meet our client's requirements, including:

- **Organisational TNA:** covering key skill sets required for an organisation. It can support other business initiatives such as future workforce planning, reorganisations and key capability analysis.
- **Role TNA:** analysis of the skills and capabilities of a role, (and gaps) required to support career development, compliance management and workforce planning.
- **Individual TNA:** analysis that is most often used in investigations of individual capability and training. This service can support incident and for cause investigations.

[Read more](#)

Some of Our Projects



▣ A partnership to implement nationally benchmarked competency standards & award qualifications. ▣

AGL Energy

[View Case Study](#)



▣ Providing a managed eLearning solution for Contractors to undertake inductions and achieve certification. ▣

Yarra Trams

[View Case Study](#)



▣ Developing electrical operating procedures and training for the new ship to shore HV connection. ▣

Toll Holdings

[View Case Study](#)



▣ Providing contextualised, site based, high voltage operations training to the wind farm sites across Australia. ▣

Vestas Australia/New Zealand

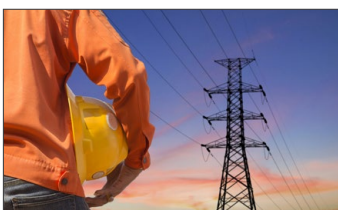
[View Case Study](#)



▣ Partnering with NSW's transmission network owner to create Apprenticeship pathways. ▣

TransGrid

[View Case Study](#)



▣ Delivering HV switching training to South Australia's HV Switching Community on behalf of ElectraNet. ▣

ElectraNet SA

[View Case Study](#)



Partnering to provide industry workshops on underground medium voltage cable installation practices.

NKT Cable Solutions

[View Case Study](#)



Agile course development for electrical safe access for Rail Tunnel construction & Level Crossing Removal.

Metro Trains Melbourne

[View Case Study](#)



Building qualification courseware to address rail skills shortages in critical infrastructure works.

Victorian Government through the 'Training for the Future' and the 'Workforce Training Innovation Fund'

[View Case Study](#)



Upskilling Control Room Operators to confidently interface with Networks & AEMO.

APA

[View Case Study](#)



Developed an audit tool to assess the utilisation and value of Site Safe Access Rules and procedures across all Palisade's solar and wind energy assets.

Palisade Infrastructure Fund

[View Case Study](#)



Thomson Bridge is proud to have collaborated with the significant cross section of the electricity generation industry to develop this important Arc Flash Hazard Management Guideline for Industry.

Australian Energy Council Electrical Arc Flash Hazard Management Guideline

[View Case Study](#)

Our Team



Lisa Parkinson
Managing Director

Lisa has worked in corporate finance and funds management teams within investment banks and accounting firms, including Macquarie Bank, Credit Suisse First Boston, PricewaterhouseCoopers and KPMG. She has a considerable working knowledge of the current Australian power industry and the dynamics that drive the electricity networks, asset owners and the contractors within the transmission, distribution, rail, thermal and renewable sectors.



Jason Watson
Director, Head of Advisory

Jason is an Electrical Engineer with extensive experience in the transmission and generation sectors. He has held senior positions in Australian and international organisations in the energy sector including EnergyAustralia, Acciona, Vestas, AusNet and Transfield. Jason has a depth of practical experience in the development and maintenance of large scale energy assets including wind farm and hydro generation assets.



Guy Broadbent
Head of Training and Assessment

During his 34 years in ESI, Guy has held a range of operational roles across the energy industry including Network System Controller for AEMO, Network System Controller and Control room Shift Manager for Energex (Qld), Delivery Manager for Zinfra, managing execution of network augmentation contracts, and Resources Manager for Zinfra Projects Division. Guy's early career included work as a distribution field operator, electrician and distribution live liner. Throughout his career, Guy has been involved in training staff and being influential in the development of training management within large National organisations.



Richard Harvey
Head of Client & Corporate Services

A skilled education professional, Richard has held senior technical L&D roles with thermal and renewable generation companies including AGL Energy and Suzlon. Richard is an advocate for Vocational Education and Training (VET) and is on the Generation Industry Reference Committee. He is a Fellow of the Australian Institute of Training and Development.



Peter Douch
Manager NSW/ACT - Electrical Networks

Peter draws on decades of experience with Essential Energy (NSW). He has a broad knowledge base of the electrical distribution industry, having worked across network and field operations, substation maintenance and testing. As a HV Switching Trainer and Assessor, he has trained and advised many distribution practitioners, renewable energy staff and HV Customers across the state. In his role as a Corporate Safety Specialist, Peter continues to develop electrical safety rules and implement system switching processes and protocols for the ESI industry.



Darren Linkins
Manager Victoria – Electrical Networks

Darren has over 40 years in the electrical transmission and distribution network industry and working with other energy providers, network operators and external stakeholders. His roles at AusNet Services (Vic), included the provision of advice on Network control and safety, conducting professional incident lead investigation and auditing, the oversight of procedures and work practices. Darren was also responsible for training and authorisation of Network Operators in network management and high voltage switching across the transmission and distribution networks.



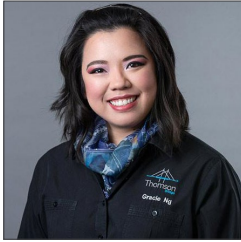
Lee Howard
Manager Western Australia - Electrical Networks

Lee has a broad knowledge of switching operations on transmission and distribution networks both in Australia and in Ireland. Most recently he has worked with Western Power on the distribution and transmission networks. In Ireland, he has managed large network upgrade projects and is a qualified electrician and switching operator, including Glove and Barrier.



Jamie Ilton
National Manager – ESI Programs

As a Project manager, Jamie has been responsible for conception and delivery of transmission and distribution projects for utility networks across Australia and New Zealand. Jamie holds dual qualifications in as a transmission and distribution linesman. He has also worked as an HV backbone distribution operator on metal clad underground and Zone Substations. These career experiences provide Jamie with a solid grounding for the development of trade qualification pathways for new and experienced workers across transmission, distribution and cable jointing.



Gracie Ng
Team Leader – Technical Engineering & Design Services

Gracie draws on her electrical engineering training and extensive knowledge of heavy industry electrical plant to oversee the development of training curriculum and electrical advisory services. Her work includes development of electrical safety policies and training tools for electrical safe access, preparation of switching instructions for energisation, planned and unplanned maintenance of high voltage electrical apparatus for renewable operators, establishment of Balance of Plant maintenance plans, and arc flash studies.



Terry Foxcroft
Advisory Committee, Power Systems Protection Engineer

Terry has 40 years in the power industry including 31 with Snowy Hydro where he was responsible for all control, protection, excitation and governor systems across diesel, gas, hydro, transmission and distribution assets. He currently consults to the power industry and provides training in protection systems.



Ken Wyper
Advisory Committee

Ken draws on decades of experience with TransGrid (NSW) where he held roles such as Senior Asset Monitoring Engineer, Substation Systems Support Engineer and Technical Training Manager. These roles included the monitoring and managing of high voltage asset condition, fault investigations, development of asset replacement and maintenance policies, procedures and work instructions.



Dr Robin Podmore
Advisory Committee, CEO IncSys PowerGrid Simulation

Robin is the CEO of Incremental Systems Corporation (IncSys), the North American partner to Thomson Bridge specialising in simulation software for power grid training and analysis. Robin has dedicated his career to the development of computer applications for Power System Operations with a strong focus on Operator Training Simulators. He is an IEEE Life Fellow and a member of the US National Academy of Engineering.

[More on Our Team](#)



Artwork piece by Tomoki Harvey July 2020
Take a look at our Art Space on our website:
[Click Here](#)

Thomson Bridge Pty Ltd

RTO ID. 40754 | ABN 83 161 836 513
1300 15 66 85 | www.thomsonbridge.com

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