



CAPABILITY PROFILE 2026



AES Insights is a division of AE Smith.

About AES Insights

AES Insights stands at the forefront of the Engineering and Technical sectors, assuming a pivotal role in the provision of consultative support and innovative solutions within the realm of building systems.



Technical Support & Advice



Design & Installation



Building Information Modelling



Operational & Service Support



Building Optimisation



Technical Support & Advice



Design & Installation



Building Information Modelling



Operational & Service Support

Our operations encompass a wide spectrum of Engineering and Technical services, including but not limited to HVAC, refrigeration, mechanical and electrical systems, Building Optimisation, Sustainability and Data Analysis Services, as well as rigorous adherence to NABERS and Green Star standards.

Known for our outstanding expertise, the AES Insights team excels in formulating and executing sustainable strategies aimed at modernising and future-proofing building systems. These endeavours are implemented with a keen eye on change management and data analysis, ensuring seamless transitions across every project. Moreover, we understand the implications of large-scale deployments and, in close collaboration with our clients, are adept at crafting bespoke solutions that can be phased in gradually, whilst remaining cost effective.

AES Insights also extends our oversight to the commissioning process, providing our clients with the assurance that their building systems and equipment remain in safe, capable hands.

Our Solutions

Project Briefing Technical Support & Advice

AES Insights – your trusted partner for expert guidance in the design, installation, and operation of mechanical and electrical services.



Technical Support & Advice

- Technical Consultation and Advice Based on Real-World Experience
- Evidence-Based Strategies and Advice
- Building Assessments
- Equipment Selection
- Optimising Building System Operations
- Value Engineering



Design & Installation

- Value Engineering
- Constructability Reviews
- Commissioning Reviews
- Project Scoping, Design and Briefing Documentation
- Adherence to Building Code of Australia standards
- Large-Scale Development with Challenging Technical Outcomes
- Factory Acceptance Testing
- Design & Construct Services



Building Information Modelling (BIM) and Management

- Services Modelling and Model Production
- Building Information Modelling (BIM) and Management



Operational & Service Supports

- Routine Service and Maintenance
- Post-Build Tuning Services
- Low Global Warming Potential Refrigerant Solutions
- Alignment with Montreal Protocol Alignment
- Indoor Air Quality (IAQ)
- Clean Air Solutions



Building Services and Optimisation

- Survey Sites/Building Audits
- Interrogate Building Management and Control Systems
- Energy Efficiency Assessments and Performance Reduction Solutions
- Assess Value Engineering Solutions and Conduct Design Checks
- Provide Recommendations for Optimisation Opportunities
- Provide Technical Solutions that improve Operational Efficiency
- Data Driven Maintenance
- Provide Ongoing Optimisation Support & Verification
- NABERS Energy Performance assessment

Building Optimisation Services

Your Sustainability Partner

Improve Your Energy Efficiency Today

Building Optimisation Services incorporating NABERS rating assessments. We support you to measure actual performance and implement systems to enhance efficiency. Our goal is to assist you in achieving and maintaining high sustainability and performance standards for your building services.



Energy Audit and Assessment: identify areas of energy inefficiency via analysing energy consumption patterns, HVAC systems, lighting, and more.



Data-Driven Analysis: Utilise advanced data analytics tools to analyse the data collected during the audit to identify trends, anomalies, and areas with the greatest potential for energy savings.



Customised Solutions: Develop a tailored energy optimisation strategy for your buildings.



Implementation and Monitoring: Oversee the implementation of recommended changes, ensuring minimal disruption to your operations. Real time energy monitoring systems to track the impact of achieving sustainability goals.



Continuous Improvement: Building energy optimisation is an ongoing process. We will provide regular performance reports and suggest further improvements.



BMS / EMS System Analysis: Assessments of Building Management Systems (BMS) & Energy Management Systems (EMS) to identify optimisation opportunities.



Energy Efficiency Solutions: Customised energy-efficient solutions to reduce operational costs and environmental impact.



Indoor Air Quality Improvement: We enhance IAQ by optimising ventilation, filtration, and humidity control within HVAC systems.



System Design and Installation: We design and install state-of-the-art Integrations for new & existing systems that meet the unique needs of our clients while meeting regulatory compliance.

Key Personnel



Troy Haynes
Building Optimisation Specialist

With over 15 years of trade-qualified experience in the HVAC industry, Troy brings a wealth of specialist knowledge of Building Management Control Systems (BMCS) and Energy Management Systems (EMS) installations. Troy has expertise in Building Optimisation, including the application of IoT solutions, Building Analytics, and Fault Detection & Diagnostics (FDD) tools.



Brace Kaho
Senior Mechanical Engineer

Brace Zhao is a Senior Mechanical Engineer with extensive experience across both consultancy and contractor environments. He specialises in HVAC and building services engineering for commercial, healthcare, education, laboratory, and numerous landmark projects throughout Australia, with strong expertise in design, coordination, commissioning, and construction delivery.



Eric Ko
Senior Electrical Engineer

Eric spent over a decade as a consultant before joining AES Insights as our Senior Electrical Engineer, amassing extensive design experience across healthcare, education, correctional facilities, and commercial projects.



Nilgoon Mansoori
Mechanical Engineer

Nilgoon is a Green Star accredited Registered Professional Engineer (NER-RPE) with 22 years of experience in mechanical services. Nilgoon specialises in healthcare, commercial, and university sectors, focusing on green building certification



Emmanuel Astruc
Electrical Engineer

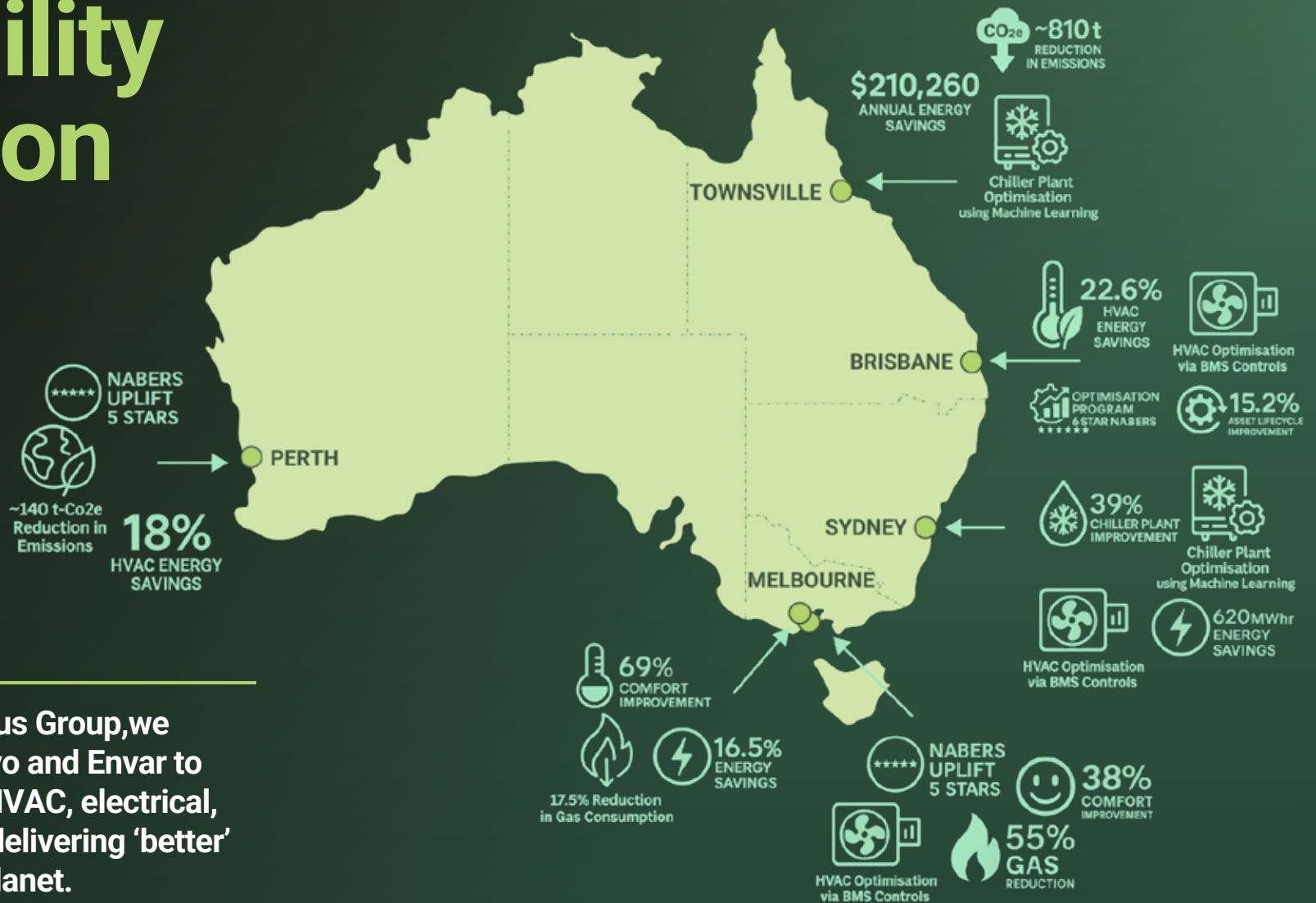
Emmanuel is an Electrical Engineer with expertise in construction and electrical contracting, especially in hospital projects. With 15 years in commercial construction and a Master's in Project Management, he excels in design, budget schedule, and risk management. His knowledge of construction procedures and standards is a valuable asset.



Wayne Nguyen
Mechanical Engineer

Wayne is a Certified Practising Engineer (NER-RPEQ) with an impressive track record of over two decades, during which he has successfully overseen various multi-million-dollar commercial engineering projects.

Capability in Action



As part of the Amplus Group, we collaborate with Nuvo and Envar to integrate next-gen HVAC, electrical, and building tech—delivering ‘better’ for people and the planet.

Case Studies

Melbourne Cricket Club (MCC)

Continuous Efficiency Innovation



Originally established in 1838, the MCC is the foremost promoter of sport in Australia and is responsible for managing the iconic **Melbourne Cricket Ground (MCG)**. AES Insights has been a key player in modernising the management and outcome of electrical and HVAC&R assets across MCG facilities. Combined efforts have seen the MCG successfully awarded a range of environmental awards and recognition, including the NECA Energy Efficiency and Environment Award.



Key Achievements

- Clean air initiatives
- 20% energy savings
- Technology advancements through Analytics (ML) strategies
- Significant reduction of R22 Refrigerant (Ozone-depleting refrigerant)

Case Studies

Scentre Group

HVAC & Electrical Maintenance, Essential Services and Refrigeration



The AES Insights team was enlisted by Scentre Group, a prominent player in the Australian and New Zealand shopping centre industry, to optimise asset management processes with the goal of improving energy efficiency and reducing reactive maintenance expenses. In partnership with Scentre Group's third-party consultants, we successfully implemented data-driven management solutions across their centres, harnessing the power of smart technology, big data, and machine learning algorithms to enhance safety, sustainability, and efficiency.



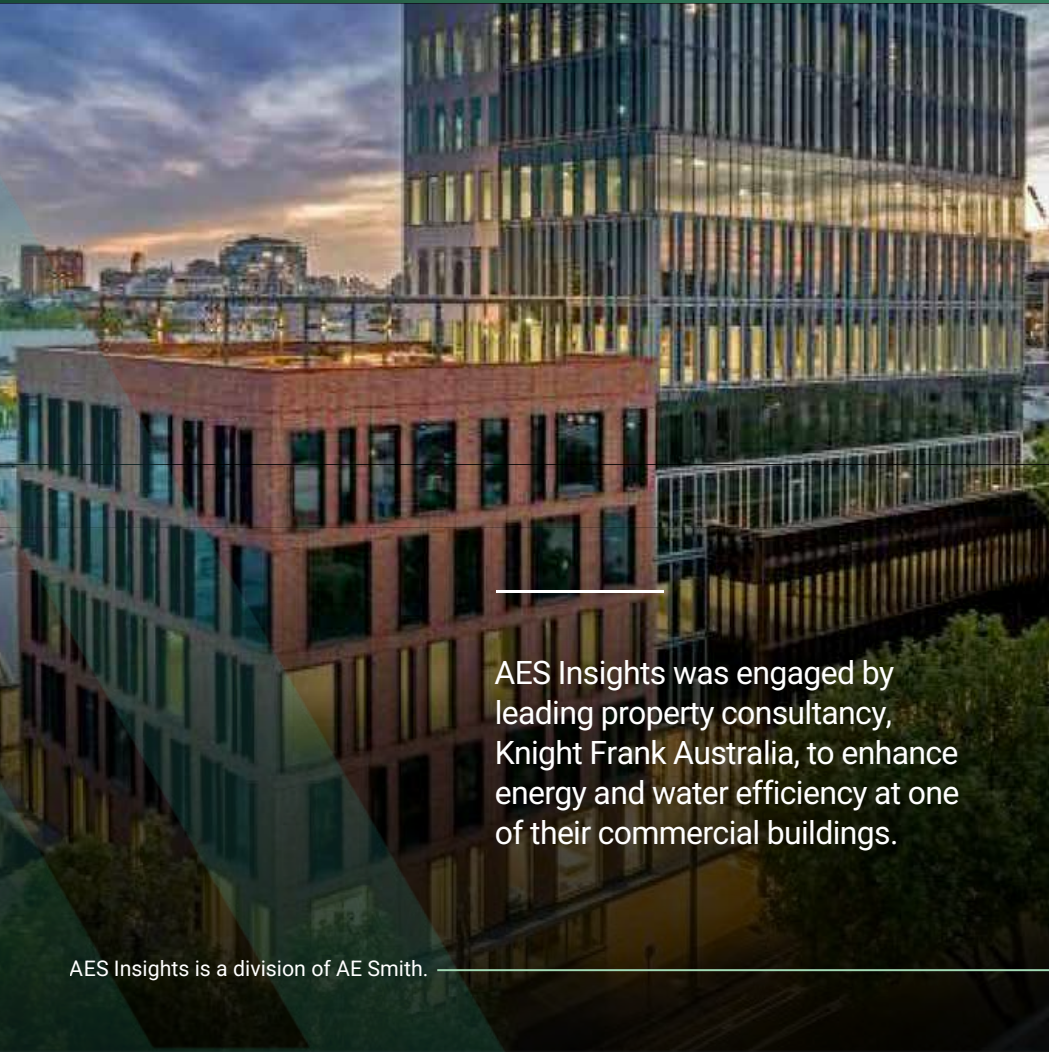
Key Achievements

- Servicing 42 Westfield Living Centres across Australia and New Zealand encompassing 12,000 outlets
- 365/24/7 service delivery across all sites, with over 22 million visitations per year
- Predictive maintenance activities enhance the performance of aging assets

Case Studies

Knight Frank Australia

71 Gipps St, Collingwood VIC



AES Insights was engaged by leading property consultancy, Knight Frank Australia, to enhance energy and water efficiency at one of their commercial buildings.

The Project

The goal was to improve the NABERS energy rating and reduce energy consumption whilst improving operational performance and occupant comfort. Key challenges included limited control of equipment, no baseline energy data, and partial occupancy.

AES Insights conducted a comprehensive analysis and provided recommendations including;

- upgrading the building control system
- data analytics
- ongoing energy management
- maintenance optimisation



The Outcomes:

Projected
Energy Savings:
~ 19%

Projected
Avoidable Cost:
\$31,000.00

Projected NABERS
Energy Rating:
5 Stars

Case Studies

Casey Hospital BGIS

Transforming Healthcare for Pandemic Preparedness



Facing the ongoing global pandemic, Casey Hospital BGIS aimed to create an environment that minimised the potential spread of infectious diseases. To achieve this, the existing HVAC systems required substantial modifications, including adjusting the air handling units (AHU) and exhaust system air flows. As experts in HVAC and healthcare infrastructure modification, AES Insights efficiently assessed, reported, and executed the commissioning of systems and control modifications, ensuring that the hospital met the pandemic mode requirements.

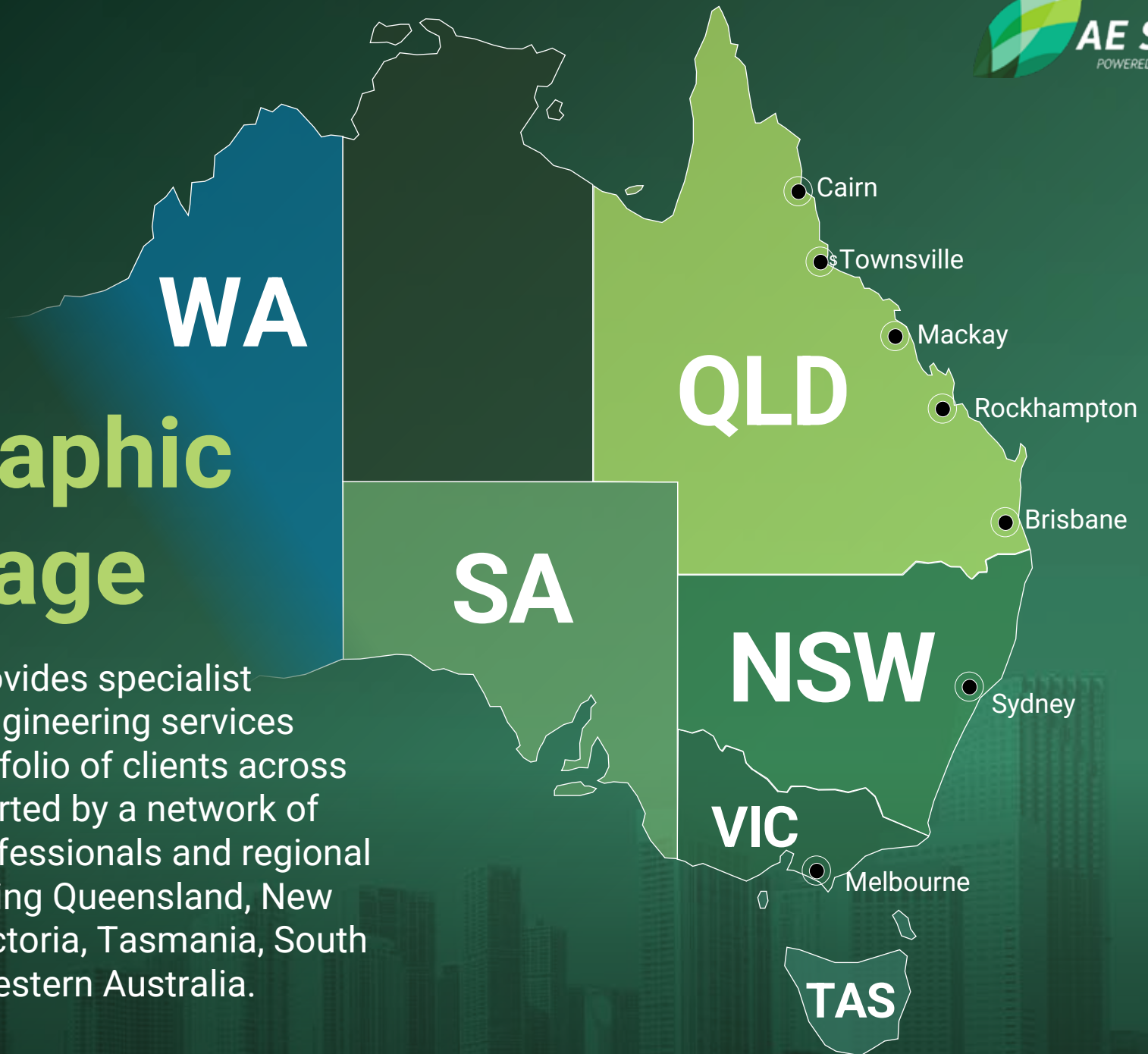


Key Achievements

- **Enhanced Pandemic Preparedness:** The modifications made to Levels 1, 2, and 5 of the IPU tower transformed these floors into pandemic-ready areas, significantly reducing the risk of airborne disease transmission.
- **Cost-Effective Solution:** **\$60,000** Approximate project costs
- **Replicable Success:** The success of this project sets a precedent for similar enhancements on Levels 3 and 4, demonstrating a commitment to overall healthcare facility safety.

Geographic Coverage

AES Insights provides specialist technical and engineering services to a diverse portfolio of clients across Australia, supported by a network of experienced professionals and regional coverage spanning Queensland, New South Wales, Victoria, Tasmania, South Australia and Western Australia.



AES

INSIGHTS

**We look
forward
to working
with you!**

Company Information

AES Insights

Locations

Melbourne
Sydney
Brisbane
Mackay
Townsville
Cairns
Rockhampton

Offices

26 Cato St, Hawthorn East VIC 3123
12 Waltham St, Atarmon NSW 2064
15/56 Lavarack Ave, Eagle Farm QLD 4009
16 Ginger Street, Paget QLD 4740
301 Woolcock Street, Garbutt QLD 4814
10/149 - 155 Newell Street, Bungalow QLD 4870
1-28 Chappell Street, Kawana QLD 4701

Contact Us

 engineering@aesmith.com.au

Call Us:

1300 313 313