
Corporate Profile

BG&E ENGINEERING

OPPORTUNITIES
THROUGH
EXCELLENCE
bgeeng.com

BG
&E

**We're a globally renowned civil
and structural engineering
consultancy celebrated
for our innovative, award-
winning designs that prioritise
practicality and constructability.**

**BG
&E**

Our Numbers Speak Volumes



Continued Success



100%
Employee-Owned



1100+
Talented Staff



1200+
FY23 Clients



Global Offices



Our Global Footprint

Our team of over 1100 professionals span Australia, New Zealand (NZ), South East Asia, the United Kingdom (UK) and the Middle East. We deliver high-quality engineering solutions and technical expertise across a range of sectors and disciplines.



Our Purpose & Values

At BG&E, we're united by a common purpose - we believe that truly great engineering takes curiosity, bravery and trust, and is the key to creating extraordinary built environments.



Our founders, Peter Bruechle, Norm Gilchrist and Ernie Evans, proudly established a values-based business. Every day, our decisions, behaviour and actions are guided by shared values. We pursue excellence and challenge norms through efficient, intelligent problem-solving.

THE BG&E WAY

The BG&E Way is more than a motto, it's the essence of how we live our purpose. Our proactive, adaptive team collaborates to achieve a common goal. We are always learning and evolving.





The Pursuit of Excellence

Challenging the norm and thinking laterally, solving problems intelligently and efficiently and continuously learning and improving.

One Team

Being proactive, adaptive and working together towards a common goal. Always doing what's best for BG&E and showing respect for others.

Care & Integrity

Building and maintaining relationships based on trust and mutual respect. Putting ourselves in our Client's shoes and being invested in their outcomes, as well as caring for the welfare and development of each and every member of the BG&E family.

*Construction Engineering Site Visit:
Barangaroo Station - Sydney, NSW*





Why BG&E?

Our rich culture is supported by real people who care about each other, our work and our customers. We're curious, dedicated and focused on solving problems with courage and original thinking – and we want to make a difference and create a positive legacy in the physical structures we leave behind.

As forward-thinking innovators, we embody community values through distinct and consistent actions. Proudly employee-owned, BG&E thrives on Client collaboration and our core values.

Our technical excellence, quality of work, integrity, Client focus and understanding of contractor risk all drive our responsiveness, contextual decision-making, attention to buildability, dedication to innovation, collaborative nature and tenacity.

At BG&E, we architect a safe, healthy, diverse workplace and work towards Reconciliation. Our Code of Conduct includes modern slavery clauses, while our preferred supplier approach leverages supply chain partners that adhere to ethical sourcing. Our environmental policy formalises how we reduce impact and improve our performance.



Environmental, Social & Governance (ESG)

Embracing ESG principles is crucial for our company as it not only aligns with our commitment to responsible business practices but also enhances our long-term sustainability, fosters stakeholder trust, and positions us as a socially conscious and ethically driven organisation in today's dynamic business landscape.

We have an ESG Committee that manages business-wide improvements, compliance and transparency, with a three-part scope of responsibilities.

Environmental Criteria:

Encompasses energy used, climate change, waste generated and natural resources consumed during operations.

Social Criteria:

Includes BG&E's relationships, initiatives and reputation for societal betterment. This involves engaging with communities for equality, social justice and inclusion through volunteering, corporate social responsibility and championing our Reconciliation Action Plan (RAP).

Governance Criteria:

Comprises BG&E's practices, controls and procedures to ensure effective decisions, legal compliance and meeting external stakeholder needs.





The ESG committee charter aligns with our purpose while our 2021-25 Strategic Plan facilitates the delivery of value for Clients, technical excellence, compliant operations, shareholder value, brand recognition, employee opportunities, sustainable communities and social equity.

Increased Support for Communities After Extreme Weather Events, Winning More Emergency Disaster Reconstruction Projects



Pursued Innovation in Material Design, Procurement & Digital Twin Technology



Began Charting A Roadmap to Reduce our Whole Lifecycle Carbon



Continued Helping Clients to Achieve Their Net Zero Ambitions via Reducing Embodied, Operational & Whole Life Carbon



The Path to Carbon Neutrality

BG&E has the responsibility and opportunity to make a sustainable difference, which we integrate into our everyday operations, corporate culture and global strategy.



As we address the global impacts of climate change, we align our projects with specific United Nations Sustainable Development Goals.

We drive business-wide improvements, compliance and transparency – collaborating with Clients, employees, communities and suppliers for a smooth transition to a low-carbon economy.

To achieve this transition, we're moving beyond business-as-usual, accelerating our efforts in responding to the rapidly evolving climate crisis, societal changes, technological advances and natural resource constraints.

We strive to minimise the impacts of our operations, design for long-term resilience and create enduring value for stakeholders, all in alignment with the United Nations' Sustainable Development Goals. This pursuit promotes human wellbeing, equality and a regenerative approach.

Our Sustainable Actions

Protecting and preserving our natural environment is critical to managing the impact of climate change. We minimise our use of natural resources and energy at all global office locations and our engineers continue to work with Clients to design sustainable built environments.

In an industry where technology for decarbonising is still in the early stages, there's much to do and we're committed to playing our part. Our journey towards Net Zero continues to focus on:

- Organisation materiality assessment to determine the supply chain universe and provide direction for future ESG initiatives and targets.
- Internal education awareness on embodied carbon and sustainable design innovations for the built environment.
- Internal reward and recognition for sustainability design innovations benefiting the built environment and end users with potential cost savings.
- External Client education and industry awareness for sustainability in design.
- Obtaining carbon baseline calculation scheme accreditation.
- Digitalising carbon footprint and monitoring our emissions.

We maintain ISO 14001:2015 Environmental Management Systems (EMS) accreditation through the implementation of global management standards, manuals, procedures, plans and sub-plans.

Our Environment Impact Policy adheres to regulations, Client expectations, local communities and external stakeholders across our diverse operational areas. We prioritise sustainable practices such as resource efficiency, emission control and biodiversity protection.

This commitment is integrated into our business strategy and procedures through our Health, Safety, Environment and Quality (HSEQ) Management System.



Sustainable Design Practice

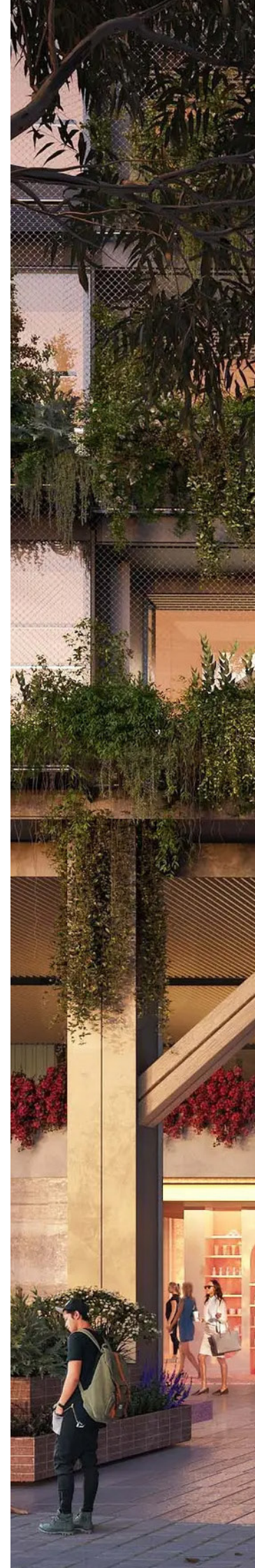
Buildings impact the environment - so we prioritise eco-efficiency and sustainable design as pivotal factors in creating low-carbon structures. Our expertise empowers Clients and partners to pursue sustainable built environments and innovative designs through embedded sustainable practices.

Our technical command enables us to identify strategic risks and opportunities related to climate change, carbon emissions and social and environmental project legacies.

Taking a customised sustainability approach, we recognise the uniqueness of each project and the value of taking a proactive, rather than reactive, approach to integrating Net Zero and regenerative development initiatives. At the design level of a project, we can enhance overall success by consciously implementing core sustainability objectives.

How we're reducing carbon emissions:

- Our UK engineering teams assess embodied carbon in our designs to gauge performance against benchmark ratings.
- Our digital engineering team created a tool for early-stage carbon calculations, aiding structural engineers in identifying improvement opportunities. Additionally, we excel in detailed carbon modelling throughout the project lifecycle.
- In Australia, we're managing Infrastructure Sustainability Council rating requirements.
- With concrete production responsible for 5% of the industry's 23% global emissions, BG&E is actively seeking alternative solutions, such as timber, to support the journey to Net Zero.
- We maximise material efficiency within buildings and optimise energy efficiency during operation.
- We prioritise environmentally sustainable design through sustainable materials, recycling, waste reduction, durability, adaptive design, land reclamation and water-sensitive urban planning.





Our Safety Ethos

We acknowledge our shared responsibility for the health, safety and wellbeing of our employees, supply chain, Clients, subcontractors, stakeholders, visitors and the local communities where we operate.

That's why we prioritise a safe, healthy and eco-conscious workplace, on and off-site. These collective values drive our continuous improvements, adherence to best practices and fortify our dedication to minimising risks across all business operations.

Safety Practices & Initiatives

Our Integrated HSEQ Management System Framework foundation is built upon these compliance requirements:

- Adherence to international standards, legal obligations, stakeholder expectations and supply chain impact.
- Management system process and operational delivery monitoring program, including inspections and internal audits.
- Routine review and resource analysis for mandatory training.
- Senior management proactively identifies workplace risks and opportunities through observations, inspections and participation.
- Monthly safety, environment, health and wellbeing consultative packs, featuring alerts, lessons learned, industry trends and key performance indicators, shared organisation-wide at town hall meetings and morning teas.
- Proactive psychosocial hazard risk assessment leading to initiatives like flexible work arrangements, hybrid conditions and mental health support.
- Employee Assistance Program for mental health and wellbeing.
- Additional employee health benefits, including annual skin cancer checks and flu vaccination programs provided by a third-party.

Diverse, Engaging Workplaces

After 50 years, BG&E remains an employee-owned engineering consultancy, fostering a 'people-first' culture and promoting a fair, enjoyable and inclusive work environment.



We embrace differences and encourage employees to be their authentic selves at work. In our community, difference means amplifying diverse voices, embracing varying opinions and fostering change discussions. It also involves aligning actions with our values and culture.

Our people are central to our mission and we aim to provide an inclusive, collaborative and growth-oriented experience that inspires and engages, ensuring equal opportunities for career growth.

The results of our annual employee engagement survey consistently confirm a culture of respect and collaboration. Employees report effective teamwork and feel genuinely cared for by managers and colleagues. This individual consideration applies to all employees, regardless of their background.



STEM for Girls Engineering Career Day - Sydney, NSW



Diversity, Equity & Inclusion

To continually improve inclusivity within the workplace, we've established a Gender and Diversity Strategy.

The BG&E Diversity, Equity & Inclusion (DEI) Committee actively works alongside champions from the Board, Executive Leadership Team and the People & Culture Team to improve our DEI landscape.

The DEI Committee focuses on intentionally developing a diverse group of technical professionals to strengthen collective problem-solving skills, which produces optimal project outcomes for Clients and communities.

Addressing gender disparities is a continuous effort in our industry, particularly in gender participation. We collaborate with our teams to enhance female representation in our talent pipelines. Achieving diversity, equality and inclusion demands a sustained commitment and we hold ourselves accountable for ongoing progress.

Learning & Development

Technical excellence is part of our past and our future. We continually add to our talent and capability programs to help build stronger career and learning pathways for our valued team.

Our collective wisdom and expertise set us apart, fostering the proactive pursuit of ongoing professional development through in-house sessions, knowledge sharing and external programs.

We collaborate with professional associations like Engineers Australia and the Institution of Civil Engineers in the UK to support our employees to become Chartered professionals. This includes participation in the Engineers Australia workforce credentialing program.





Reconciliation Week 2023 - Perth, WA

Reconciliation

BG&E's formalised Reconciliation Action Plan (RAP) prioritises Indigenous Australian education, employment and procurement – fostering economic development in First Nation communities.

Committed to daily change, we partner with local Indigenous trainers for regular cultural awareness seminars in our Australian offices, valuing and learning from Australia's Indigenous heritage.

We support Aboriginal students at Sevenoaks Senior College in Western Australia (WA) through scholarships, workplace learning and site visits during Harmony Day and NAIDOC week. Additionally, we collaborate with Koolark at North Metropolitan TAFE, funding TAFE courses, providing guest speakers and construction site tours and offering drafter traineeships.

BG&E is actively engaged in multiple other Reconciliation initiatives including cultural events, commissioning Aboriginal artworks, cultural awareness training and participation in the National Reconciliation Action Plan Conference. We sponsor the UWA Western Waagyls team, support Indigenous suppliers for clothing, PPE and catering and create employment opportunities.

As an equal opportunity company, we employ staff from diverse backgrounds, including First Nations peoples.



BG&E's Reflect RAP (2023)

Community

Worldwide, our teams strive to make a positive impact by tackling technical project challenges and engaging with local communities through grassroots programs. We champion communities where our teams live and work to build strong local partnerships and support various meaningful charities, appeals and STEM programs close to our hearts. Some of our initiatives include:

- Donating computers to schools in disadvantaged countries.
- We supported the Indigenous Australian Engineering Summer School Program in Western Australia, to inspire and encourage young Indigenous Australians to pursue engineering and science careers. This five-day live-in program gave Indigenous students first-hand experience in engineering and science through classes, labs and field trips.
- Our offices actively participate in STEM programs, offering inspiration and information to young students interested in engineering careers. Our engineers share personal journeys and practical case studies to motivate and empower students.
- Support of the podcast 'You Don't Look Like an Engineer' - a production by BG&E employees that champions diversity in engineering. Through engaging discussions with industry experts, we explore personal experiences and challenges in a male-dominated field.





Governance

BG&E's board has five direct subcommittees that assist and advise the board in decision-making and risk management:

1. **ESG Committee:** Handles ESG matters
2. **People & Remuneration Committee:**
Manages people, culture and remuneration strategies
3. **Finance & Audit Committee:** Ensures financial control and compliance
4. **Safety, Quality & Risk Committee:**
Oversees safety, quality and risk management
5. **Investment Committee:** Advises on investment decisions, balance sheet management, dividend policy, treasury and capital expenditure

Modern Slavery

We have a Modern Slavery statement across the BG&E Group, reflecting our continued opposition to exploitative practices. We acknowledge our responsibility to safeguard human rights through ethical business practices, aligned with the United Nations Guiding Principles and local laws.

While our core business is professional services with low risks of modern slavery, we recognise potential risks in our supply chain and take steps to mitigate them. Our preferred supplier approach promotes good corporate citizenship and the circular economy by partnering with ethical, diverse suppliers.

Industry Accreditation

Our strong commitment to our management systems is one of the principal drivers of the provision of quality advice, design and documentation to our Clients. BG&E maintains and implements independently audited management systems:

— GLOBAL STANDARDS

ISO 9001:2015

Quality Management Systems (QMS)

This standard verifies certification to the internationally recognised QMS standard. Compliance lifts our outcomes and customer satisfaction by advancing business performance and strategic decision-making.

ISO 14001:2015

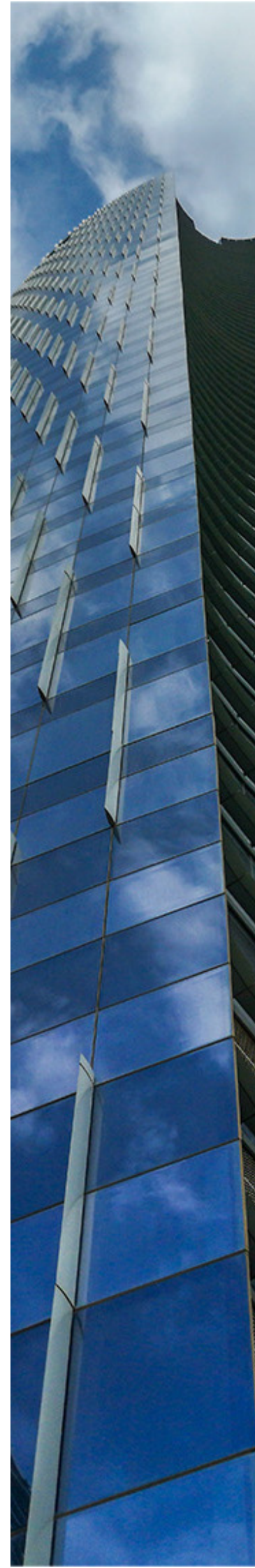
Environmental Management Systems (EMS)

This widely recognised and utilised standard details optimised EMS requirements. It strengthens our environmental sustainability and cost efficiency by reducing waste and energy use.

ISO 45001:2018

Occupational Health and Safety Management Systems

This standard fortifies our proactive risk management. Finding and addressing potential hazards boosts morale and safeguards employee wellbeing by reducing accidents, injuries and illnesses and ensuring compliance with relevant regulations.



ISO 19650:2018

Organisation and digitalisation of information about buildings and civil engineering works, including Building Information Modelling

This globally recognised standard pertains to the entire lifecycle of a built asset, from initial design to decommissioning. Our adherence establishes the benchmark for effective information management across the lifecycle of a built asset using BIM.



AUSTRALIA & NZ

JAS-ANZ

Our Quality, Safety & Environment systems are certified to strict JAS-ANZ standards, ensuring we stay informed about industry best practices to deliver the highest quality outcomes.



UK

RISQS accreditation

Our comprehensive supplier assurance for GB Rail ensures open, fair and transparent recognition of our rail engineering design services.

Cyber Essential Certificate

Our attainment of this certificate gives Clients peace of mind by safeguarding against common cyber threats.



EastCo - Melbourne, VIC



Our Technical Expertise

BG&E's expertise is characterised by technical brilliance, innovation and constructability. Working closely with Clients and stakeholders, we deliver world-class technical solutions, using design standards and best practices in engineering, hydrology, materials, transport planning and more.



PROJECT LIFECYCLE

This illustrates the lifecycle of a construction project, highlighting eight critical stages and showcasing the progression of a project from start to finish.



BRIDGES

We specialise in complex bridge design, utilising material behaviour knowledge to create award-winning solutions. Our expertise covers planning, feasibility studies, conceptual, schematic and detailed design, construction documentation and on-site support. We offer a range of sophisticated solutions, from balanced cantilever, segmental, incrementally launched and cable-stayed designs to precast modular components, in-situ and prefabricated options, all with a strong focus on constructability and durability.



CIVIL ENGINEERING

Increasing population, urbanisation, resource constraints and disruptive technologies continue to drive demand for clever and sustainable civil projects. With over half a century of experience, we realise innovative and sustainable solutions across a wide range of projects. From land development and highways to railways and mine access roads, our expertise combines technical know-how and efficient resource utilisation for optimal outcomes.



CONSTRUCTION ENGINEERING

From high-rise towers to major infrastructure projects, we keep pace with industry standards and safety regulations, as projects increase in complexity and scale. Our expert teams design solutions for the heavy lifting of oversized precast structures, temporary works associated with jacking building transfer decks and strengthening existing structures for construction loadings.

In the Property sector, we deliver temporary and permanent works, construction methodology development, facade restraint, and capacity assessments. In the booming Transport sector, we provide temporary works, load rating and capacity assessments and construction support.





DIGITAL ENGINEERING

We employ evolving technologies and custom software development to tailor solutions that optimise data-driven maintenance, operations and asset management. Our approach includes parametric modelling for design optimisation and smarter decision-making. Geographic Information Systems (GIS) inform design choices through spatial analysis while machine learning captures and analyses datasets to generate insights and predictions.



FACADES

Globally recognised for our innovative facade solutions, our consultants provide pioneering facade design, architectural detailing and engineering, thermal performance, materials science, remediation and recladding solutions. Our talented team of structural engineers, building physicists and designers seamlessly collaborate to realise beautiful buildings with optimal outcomes for owners, occupants, visitors and tenants alike.



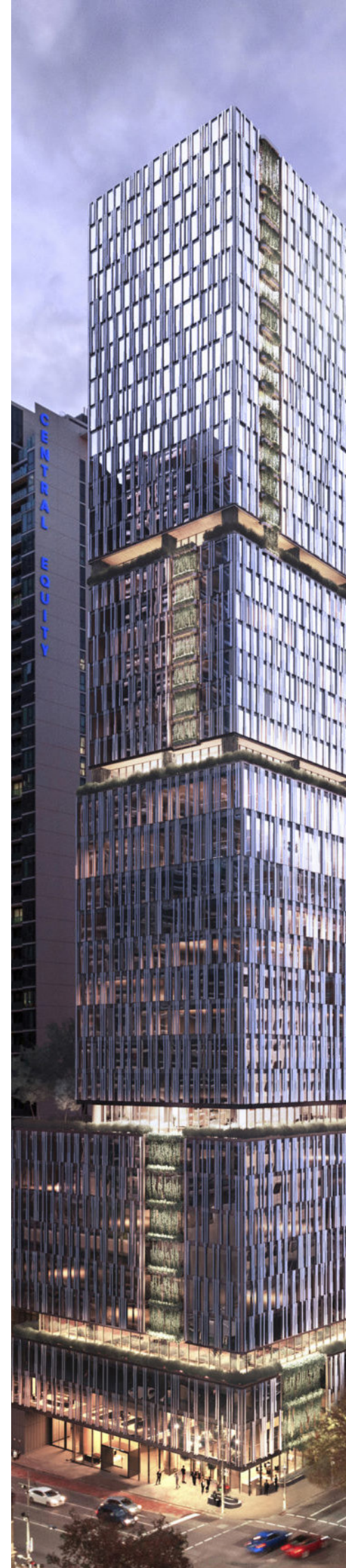
FLOOD MANAGEMENT & HYDROLOGY

Taking a holistic approach, our dedicated teams of water engineers, scientists and cross-disciplinary designers, deliver a range of services that meet objectives and provide sustainable solutions. We work across surface water and hydrological investigations, flood modelling and floodplain risk management, integrated water management and waterway structure and design. We collaborate with local councils on flood studies to reduce risks.



GEOTECHNICAL

We hold various accreditations for geotechnical design and adhere to ISO9001 quality assurance standards. Our global geotechnical services include desk studies, investigation scoping, site formation, slope and foundation design and deep excavation. Highly skilled in soil-structure interactions, utility impact assessment and government liaison, our work is verified through regular external audits.





MATERIALS & DURABILITY

BG&E is at the forefront of concrete advancements. With links to academia, our materials team provides materials selection, specification and optimisation, durability design, design and specification conformance, constructability staging, asset inspection and remaining life assessments. We also offer defect and dilapidation remediation strategies, non-destructive and destructive materials testing, conflict resolution and support related to construction law.



RAIL

From stations to bridges and tunnels, our award-winning engineers excel in diverse railway infrastructure projects that prioritise accessibility. Our expertise covers pavements, car parks and drainage systems, with a focus on bus-rail transfer stations and maintenance facilities. Skilled in hydrology analysis, we offer independent design verification and review services, upholding quality and safety standards to deliver world-class engineering services.



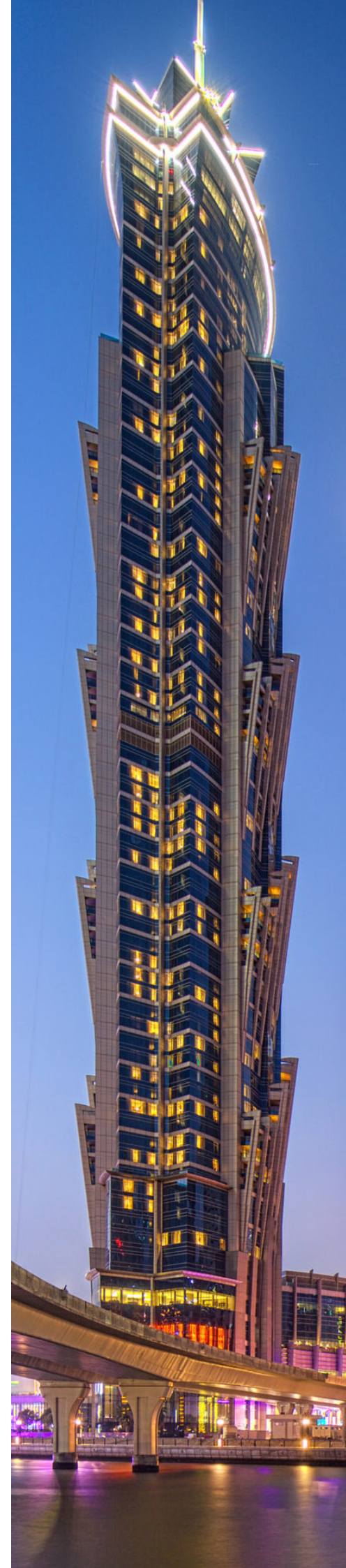
STRUCTURAL ENGINEERING

Responding to increased densification, our imaginative, connected solutions employ technical brilliance, aesthetic vision and robust performance so communities thrive. Our award-winning team designs and engineers ambitious structures from high-rise towers and luxury hotels to critical transport solutions. In collaboration with planners, architects, developers and contractors, we leverage innovation, agility, physics and materials for world-class outcomes.



SUSTAINABILITY

We strategically address climate risks and opportunities by collaborating with specialists, clients, and stakeholders, guiding informed decisions through the integration of sustainability into design. Our services encompass embodied carbon calculation, Green Star rating advice, Infrastructure Sustainability (IS) rating scheme management, materiality assessment, options frameworks, sustainable procurement, resilience planning, energy advice and resource efficiency plans.



TIMBER

As eco-friendly construction leaders, our low-carbon solutions expertly integrate timber, steel and concrete through our strategic merger with Timber Design Studio. Our services encompass structural and building physics engineering, manufacturing design, facade and fire engineering, procurement, project management and cost planning. Our streamlined process, up to 'approved for construction' submission, ensures efficient project delivery.

TRAFFIC & TRANSPORT PLANNING

Our skilled team merges traffic engineering and transport planning expertise, utilising advanced tools to craft resilient strategies. We optimise road space, ensure safety compliance, integrate with diverse transport systems, and focus on safety, congestion, commute times and decarbonisation. By combining various transport modes, economic data and environmental assessments, we optimise mobility plans and unlock land development opportunities.

WATER INFRASTRUCTURE

Our water engineering services specialise in hydrologic and hydraulic analysis for new infrastructure and flood mitigation. Our water engineers, scientists and designers bridge the gap between investigations, hydraulic modelling and detailed design and documentation of waterways structures and civil works. Integrating local expertise and future scenarios, we optimise design and construction for local context, durability and reduced environmental cost.



Our Market Sectors



Adaptive
Re-use



Aged Care



Arts & Culture



Aviation



Commercial
& Office



Data Centres &
Mission Critical



Defence



Education



Entertainment
& Leisure



Healthcare



Heritage &
Refurbishment



Hotels &
Accommodation



Mixed-Use



Ports & Marine



Rail, Stations
& Over Rail



Renewables
& Energy



Residential



Roads, Bridges
& Tunnels



Sports, Stadia
& Recreation



Transit Oriented
Development



Award-Winning Projects

BG&E thrives on technical excellence, fuelling our team's collaborative spirit and driving us to create and execute exceptional projects on a global scale. Our internationally acclaimed engineering designs reflect our dedication to diverse fields. Here's a snapshot of some of our recent achievements:

Armadale Road to North Lake Road Bridge Project

Client Choice Awards 2023

- Most Innovative Built & Natural Environment Consulting Firm | **Finalist**
- Best Provider to Construction & Infrastructure | **Finalist**

Allianz Stadium

Australian Steel Institute (ASI) 2022 Australian Steel Excellence Awards

- National Winner for Buildings – Large Project Winner

BG&E

Client Choice Awards 2023

- Most Innovative Built & Natural Environment Consulting Firm | **Finalist**
- Best Provider to Construction & Infrastructure | **Finalist**

BHP Low-Level Bridge Replacement Project

2022 Austroads Bridge Conference

- Excellence in Asset Management & Maintenance | **Finalist**

Captain Cook Highway – Smithfield Bypass
2022 Civil Contractors Federation QLD Earth Award

- Project Value \$75-\$150million | **Winner**

Hay Street Bridge Vertical Clearance Improvement Project

2022 Austroads Bridge Conference

Excellence in Sustainability | **Finalist**

- Best Structure - 35 metres or under | **Winner**

Mandurah Bridge Project

2022 Austroads Bridge Conference

- Excellence in Innovation | **Finalist**
- Best Structure - over 35 metres | **Winner**

One the Esplanade

Excellence in Concrete 2023 Awards

Award for Excellence - Commercial Buildings - **Winner**

SAAR Interchange

The Institution of Structural Engineers

- Husband Prize - for papers of merit related to bridges - Francesco Presta, Joe Turner and Kashif Rasheed for "An incrementally launched ramp for the SAAR Interchange in Bahrain". | **Winner**

Sydney Metro City and Southwest Tunnel and Station Excavation Works

2022 Australian Construction Achievement Award

- Australian Construction Achievement Award | **Winner**

Quay Quarter Tower

2023 Concrete Institute Australia (CIA)

- Repair, Restoration and Retrofitting **Winner**
- Kevin Cavanagh Trophy for Excellence in Concrete - Winner Structure | **Winner**

2023 CTBUH Awards - Award for Excellence

- Structure | **Winner**
- Construction | **Winner**
- Best Tall Building 200-299 metres | **Winner**
- Best Tall Building Oceania | **Winner**
- Repositioning | **Winner**
- Systems | **Winner**
- Space Within | **Winner**

2023 Excellence in Concrete Awards

- Award for Excellence - Repair, Restoration and Retrofitting Category | **Winner**

2023 ACI Excellence in Concrete Construction Awards

- Overall Excellence | **Winner**

2023 International Association for Bridge & Structural Engineering (IABSE)

- Rehabilitation Project | **Winner**
- Gold Star Award | **Winner**

2023 MIPIM Awards

- Most Innovative Built & Natural Environment Consulting Firm | **Winner**

2022 World Architecture Festival (WAF)

- Building of the Year | **Winner**



At BG&E, we are united by a common purpose – we believe that truly great engineering takes curiosity, bravery and trust, and is the key to creating extraordinary built environments.

Our team of more than 1100 highly skilled people, in 15 offices across Australia, New Zealand, Singapore, the United Kingdom and Middle East, design and deliver engineering solutions for clients in the Property, Transport, Ports and Marine, Water, Defence, Energy and Resources sectors.

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**BG
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