### **Data Centres**

**Capability Statement** 

OPPORTUNITIES Through Excellence unu -

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bgeeng.com



# Data is the new gold – it's the most important commodity in today's digital era.

Across the globe, businesses and governments are grappling with the fast growing volumes of data and how best to protect, access, store and manage it?

This question coupled with the rising risk of cyber security attacks, robust data privacy regulations, mass transition of remote workforces, and increased usage of the Internet of Things (IoT), artificial intelligence (AI) and augmented reality (AR) – is driving the demand for data centres and mission critical facilities.

In 2022, research showed there are approximately seven million data centres worldwide and the pipeline of new large-scale data centres is significant.

Forecasts indicate investments in the global data centre sector is growing expotentially – including \$82 billion in the United States, \$62 billion in

Asia-Pacific, \$34 billion in Europe and more than four billion in the Middle East.

While many think data centres are developed for leading technology giants to provide cloud-based services, there is a growing appetite by governments and businesses to maintain their own centres, or to take a hybrid approach based on their data protection requirements. Whatever the type of facility, they are home to the most critical and proprietary assets, and their importance to daily operations underpins why security and reliability, of the centres, is a priority

BG&E's data centre solutions provide several tangible benefits to our clients and their end users.







Achieves Sustainability Benchmarks

Improves Data & Cyber Security

**Reduces Embodied** Carbon

Our clients seek technical professionals that understand their business, industry and their customers – and can design data centres and mission critical facilities that are secure, operationally resilient (providing continuity 24/7, including during crisis), energy efficiency and scalable.

At BG&E, we have more than 50 years of experience in developing solutions for the built environment. Our teams have helped clients to design and deliver data centres in Australia, Asia-Pacific, Europe, the United Kingdom (UK) and the United Arab Emirates.



Improves Network Efficiency



Improves Workspace

# Data Centre for Leading Software Company

Location: Vienna, Austria Client: Undisclosed

Situated in the Austrian capital, Vienna, the 9,750-square metre, 4.8-megawatt data centre was designed for a leading software provider.

The rising risk of cyber security attacks, robust data privacy regulations, mass transition of remote workforces, and increased usage of the IOT, AI and AR – is driving the demand for data centres and mission critical facilities.

The collective team of BG&E and other consultants created a data centre that is protected from natural hazards and malicious attacks, optimises energy usage and is adaptable for growth. It was delivered ahead of schedule and in accordance with local development regulations. Our highly skilled team provided structural and civil design services, structural and civil site support, and temporary works design for the technologically-advanced centre.





## **Data Centre** for Technology Giant

**Location: Madrid, Spain Client: Undisclosed** 

Data is the new gold – it's the most important commodity in today's digital era. Across the globe, architects and engineers are collaborating to create data centres to protect and store the fast growing volumes of data for industry and governments.

Working with a dynamic team of technical specialists, BG&E designed a state-of-the-art rapid deployment data centre, for one of the world's largest technology giants.

for the project.

The 7,400-square metre, 4.8-megawatt centre is located in Madrid and includes the hallmarks of outstanding security, uncompromising reliability and energy efficiency.

BG&E provided structural and civil design services, structural and civil site support, and temporary works design



# Facility for Leading Data Centre/ Cloud Computing Company

Location: Dubai, United Arab Emirates Client: Undisclosed

A leading data centre and cloud computing provider with 220 data centres across five continents, engaged a technical team, which included BG&E, to design and deliver a new data centre in the Middle East.

The 7.2-megawatt facility is located in the thriving metropolis of Dubai, on a 12,460-square metre site and has a data hall of approximately 4,400 square metres.

Our team provided structural and civil design services, Architect of Record, structural and civil site support, and temporary works design for the new centre. Our clients seek technical professionals that understand their business, industry and their customers – and can design data centres and mission critical facilities that are secure, operationally resilient (providing continuity 24/7, including during crisis), energy efficiency and scalability.



## Protecting Data is Key for Leading Technology Provider

Location: Berlin, Germany Client: Undisclosed

Situated in Berlin in Germany, the 16-megawatt data centre was designed for a leading technology company.

Achieving security and reliability in our rapidly evolving digital world is becoming increasingly difficult. As the owners and operators of data centres will attest, the challenges have never been more demanding to guard against cyber attacks and ensure uninterruptible power supply.

There are various drivers which are spurring on increased levels of new data centres being designed and delivered including governments and businesses requiring larger facilities to store, back-up and recover data, managing the increasing volume of e-commerce transactions and powering online gaming communities, to name a few. The team from London and other consultants created a data centre that is protected from natural hazards and cyber attacks, optimises energy usage and is scalable for growth. It was delivered in accordance with local development regulations.

Our highly skilled team provided structural and civil design services, value engineering and temporary works design for the mega-sized centre. We have also delivered a mega-scale 30-megawatt facility comprising of five buildings and assisted with repurposing a commercial premises into a data centre, in the UK, and assisted with a 16-megawatt facility in Switzerland and a 29-megawatt data centre in France, among others.

### What Makes Us an **Exceptional and Trusted Engineering Partner?**

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 teams in Australia, New Zealand, Singapore, the UK and Middle East, design and deliver engineering solutions for clients in the Property, Transport, Ports and Marine, Water, Defence, Energy and Resources sectors.

We collaborate with leading contractors, developers, architects, planners, financiers and government agencies, to create projects for today and future generations.

From structural engineering to facade design, civil engineering to materials testing and beyond to transport planning, hydrology, flood modelling, digital engineering, asset management and geotechnical -BG&E's expertise is characterised by technical brilliance, innovation and buildability.

Our legacy and our future are underpinned by an unwavering commitment to provide a premium client experience and improve humanity.

100%

### 90%

**Employee-Owned Engineering** Consultancy

**Of Our Workforce are Technical** Experts

>50 yrs

\$32.1bn

Half a Century of Experience

**Estimated Value of Projects** that BG&E Contributed to in The Infrastructure Sector, in 2022

15 offices \$13.7bn

Local Footprint and Global Reach

**Estimated Value of Projects** that BG&E Contributed to in The Property Sector, in 2022

>850

\$3.1bn

**Talented Employees** 

**Estimated Value of Projects** that BG&E Contributed to in The **Renewables Sector, in 2022** 



**Increased Support for Communities** After Extreme Weather Events, By Delivering More Emergency **Disaster Reconstruction Projects** 









**Pursued Innovation in Materials, Design, Procurement and Digital** Twin Technologies



**Continued Helping Clients to** Achieve their Net Zero Ambitions, **Reducing Embodied, Operational** and/or Whole Life-Cycle Carbon in **Projects** 



**Began Charting our Roadmap** to Reduce our Whole Life-Cycle Carbon

Our purpose is our reason for being. It enables us to work with others and collectively use our expertise to benefit society, as well as to consider the vexing issues that are shaping our planet, such as climate change, technological advances, social inequality and most recently, Covid.

#### **Our Values and 'The BG&E Way'**

Our founders – Peter Bruechle, Norm Gilchrist and Ernie Evans - proudly established a values-based business. BG&E's values are: care and integrity, the pursuit of excellence, and one team. Our values inform our behaviours and the way we:

- help clients around the world;
- empower our people to be empathic, high-performing and creative: and
- contribute to communities.

Living our values every day ensures that we demonstrate care and integrity, strive to pursue excellence and serve as one team, that is 'The BG&E Way'.

#### Safety & Wellbeing

We enjoy healthy workplaces, deploy practices that reduce risk, comply with Occupational Health and Safety regulations, impose zero harm to the communities that we operate in, and support each other so we go home safely every day.

#### **Diversity & Inclusion**

At BG&E, we are a community, a diverse melting pot of people striving to achieve our best and to live our best lives.

We encourage you to bring your complete self to work, as we recognise the importance of embracing difference.

In our community, difference translates to elevating different voices, integrating contrasting opinions and welcoming conversations about change. It also means demonstrating behaviours that align with our values and culture.

For clients, an inclusive and engaged workforce is a productive workforce, a global team of equals innovating, creating and having fun while we work.

#### Social Impact

Our people make positive impacts on societies by contributing to grassroot programmes that help local communities to be sustainable, resilient and socially equitable. Our philanthropic, ethically oriented initiatives are creating a future for all to thrive.

#### Reconciliation

BG&E's Reconciliation Action Plan was launched in 2019 and since then, we have been providing opportunities to improve the lives of Indigenous Australians. Our focus is directed towards education and employment

pathways, as well as to procurement practices, as these sustain economic development in First Nation communities.

BG&E recognises the journey of reconciliation is not limited to a handful of days or weeks during the year, but rather to an ongoing appreciation of Australia's Indigenous heritage and a commitment to incremental change every day.

BG&E proudly acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional Owners of the land on which we operate and the sites where our projects are planned, designed, and delivered. We honour their ownership of 65,000 years and their continuing connection to culture, community, land, sea, and sky, and we pay our respect to them and their Elders, past and present.

#### **Modern Slavery**

BG&E maintains the highest standards of ethics and integrity across our business practices and with our stakeholders. We have a zero-tolerance approach to any form of modern slavery, that is, slavery, servitude, forced or compulsory labour, or human trafficking, and we are committed to enforcing systems to ensure human rights violations do not occur within BG&E or within our supply chain. We expect our sub-consultants, subcontractors, vendors, suppliers and their employees, business partners and others working on their behalf to conduct business in accordance with the respective geographic legislation, as well as in accordance with BG&E's Code of Conduct.

# Expertise

### **Technical excellence is the bedrock** of our business, it drives our people and underpins the outcomes we provide for clients and communities.

Our talented and ambitious civil, structural and geotechnical engineers, hydrologists, digital engineering experts, including Building Information Modelling (BIM) specialists, and drafters, combine state-of-the-art design with problem solving, digitisation and value engineering, to deliver solutions that include a firm focus on constructability.

- Asset Management
- Bridge Design
- Civil Engineering
- Digital Engineering
- Emergency Disaster Reconstruction
- Facades
- Flood Management & Hydrology
- Forensic Engineering & Expert Witness
- Geographic Information Systems (GIS)
- Land Development
- Materials & Durability
- Structural Engineering
- Traffic Engineering
- Transport Planning

BG&E provides services across the entire project life-cycle, for greenfield and brownfield developments.







### What Does Sustainability in Construction Mean to You?

### To us, it means working with clients to help them harmoniously transition and become leaders in a low-carbon economy.

#### Sustainability

We are in a privileged position to apply the technical expertise of our professionals to help restore the balance in the natural and built environments.

BG&E's Environmental, Social & Governance Committee is building on the outcomes that have already been achieved by working with employees, clients, communities and suppliers to harmoniously transition the business to be a leader in the low-carbon economy.

Part of this transition includes improving sustainability in construction by drawing on our collective ingenuity to help clients deliver high-performing, resilient projects.

We apply a holistic lens to emissions reduction, which includes but is not limited to considering:

- project selection and planning;
- structural design and engineering;
- value engineering;
- the materials being used and their proximity to sites;
- transportation methods of materials to sites;
- construction methods;
- final usage/operation of projects; and
- decommissioning.

As we join the rest of the world in responding to the impacts of climate change, we are also striving to deliver projects that contribute to the United Nations' Sustainable **Development Goals.** 



Consult Australia's -**Consulting Matters**, **March 2022** 





### Here are some media articles that feature BG&E and our role in helping to drive a more sustainable future for our clients and their stakeholders





Read more here

### It's Time to Get Serious About Concrete to Take on Climate Change:

Robert Gottliebsen

In vowing not to close coal fired power stations until equivalent replacement generation is in place, the bidders for AGL – Atlassian's Mike Cannon-Brookes and Brookfield's Stewart Upson – have added realism to the "shut down coal frenzy" sweeping Australia.

For that, the nation can be grateful because, until now, the frenzy was not being moderated by that vital qualification. The frenzy has also obscured sources of carbon pollution which rival coal that few want to discuss, because they go to the heart of the current Australian and world economic stimulation. That is the use of concrete and steel in construction.

Twiggy Forrest's Fortescue has highlighted the carbon content of steel production, but concrete is rarely talked about probably because, as a community, in most of our houses we are replacing stored carbon in the form of timber with concrete slabs and their associated carbon emissions. If we are serious about carbon emissions, then we must not leave all the heavy lifting to coal – concrete must be part of the action. And just like coal, we can't simply abandon concrete unless we develop techniques and materials to either replace it or make it differently.

Late last week Frank Cerra, Managing Director of BG&E, sent me a note highlighting the size of carbon emissions from concrete. I will share some extracts and then highlight how the so-called "Bacchus Marsh" Australian technology gives us a chance of becoming a world leader by overcoming the carbon-fromconcrete global problem. Cerra points out:

- The global construction sector accounts for 25 per cent of the world's emissions. And as the world increases its investment in infrastructure and new buildings, emissions are rising rapidly. It's predicted the equivalent of one New York City will be built every month globally until 2060.
- The global cement industry produces 7 to 8 per cent of the world's man-made carbon dioxide. Concrete is consumed at a rate of 33 billion tonnes per annum and is the most consumed material in the world after water.
- Currently, over 20 per cent of Australia's GDP is attributed to infrastructure sectors, with 33 per cent of planned infrastructure project activity occurring in NSW and Victoria. Approximately 25 million cubic metres of concrete are used annually in construction.

Cerra says engineers understand the critical interdependence of structural efficiency and materials and are working with key players to reduce embodied carbon in their projects, but a lot more needs to be done.

Meanwhile NSW has launched a program to reduce carbon in infrastructure by developing <u>"collabo</u>rative solutions which are

practical yet ambitious while also ensuring our infrastructure is fit-forpurpose and built to last".

Now to the "Bacchus Marsh" cementmaking technology story. Soon after the turn of the century, scientist Mark Sceats concluded that for many furnace applications, including cement, it would be far better to use a cylinder heated to very high temperatures and to conduct the treatment process inside that cylinder. That method of operation would also allow electrification of the furnace. Washington H. Soul Pattinson saw Sceats process as a potential way of making better bricks. A test plant was commissioned at Bacchus Marsh in Victoria, but Soul Pattinson pulled out with the plant not completed. The employees raised the money to complete the plant and managed to keep it operational. Sceats is now the chief scientist at Calix, the listed-Australian company that owns the technology.

Australian cement makers were not interested, but in Europe there was a crisis. Back in 2005, the enormous emissions from its cement makers were neutralised by huge carbon credit certificates which would have lasted many decades. But the cement makers were greedy and didn't take carbon seriously, so they sold their abundant carbon credits for a profit of some \$8bn. Now the European Union is being tougher on carbon but most of the credits have gone. So far the cement makers have not been able to find a satisfactory substitute for lime in cement so they are pursuing a strategy of developing technology to separate and collect the carbon emissions from the cement process. They will either use the separated carbon in industry or store it in old oil wells.

The Bacchus Marsh plant was able to separate carbon so the European cement makers trialled the Australian technology (officially called LEILAC-1) in a massive Belgium pilot plant. Other technologies were also tested before the Europeans declared last October that the Australian technology offers the cheapest way yet to decarbonise the cement industry.

Calix will receive royalties, but it is now pursuing non-cement uses for its technology. In a deal with Pilbarra minerals, the base Bacchus Marsh technology is also being used in a scoping study to support the development of a demonstration plant to produce lithium salts. That will support a pathway towards potential future commercial production of valueadded lithium products.

There are many others working on technology to reduce carbon emissions. Many will fail, but the successful developments will enable the world to slash emissions without diminishing living standards.



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### **Innovative Project Delivery**

BG&E has been successfully delivering projects utilising Digital Engineering (DE) for more than a decade. Our DE team continually develops our capability with a focus on data, technology and people. We achieved ISO 19650 accreditation – the internationally recognised standard for BIM – for the Property/Buildings and Infrastructure sectors.

A key element of this is robust data management. BG&E recognises the importance of maintaining high quality data throughout the project life-cycle, which in turn enables project teams to utilise digital technologies which rely on accurate, consistent and meaningful data.

We understand that people are critical in generating high quality data and effectively implementing technology.

Our DE team provides ongoing digital training and support to projects teams.

We have implemented processes to support the collaborative production of information, which ensures project teams have clearly defined roles and responsibilities, as well as an understanding of what information is required and why.

BG&E is committed to exploring emerging technologies and seeking out opportunities to deploy them during the life-cycle of built assets. Our significant DE capabilities span BIM, GIS, software and web development, parametrics, visualisations, virtual and augmented reality, digital twins and the IOT. Innovation drives our teams and by working in partnership with clients and other stakeholders, we deliver projects that encompass automated checks of BIM models, the parametric design of structures and the creation of web-based engineering analysis tools. Our knowledge, technical expertise and people-centric approach to DE is an integral part of project delivery and allows BG&E to deliver exceptional projects across the regions where we operate.



### Awards

#### 2022

#### Quay Quarter Tower

Urban Taskforce Australia's Development of the Year 2022 Development of the Year Award – Winner

2022 Engineers Australia Sydney Awards for Excellence, Sir Hudson Award - Winner

2022 World Architecture Festival Awards, UK, Buildings: Office Award – Winner 2022 German Architecture Museum and DekaBank, Germany, International High-Rise Award – Finalist

2022 Engineers Australia National Awards for Excellence, Sir Hudson Award – Finalist

2022 Institute of Structural Engineers Awards, UK, Structural Award for Planet, People, Process and Profession -Shortlisted/Finalist

(BG&E, Multiplex, 3XN, BVN, ADG Engineering, Kasina Consultants and Arup)

#### Sydney Metro City and South West Tunnel and Station Excavation Works 2022 Australian Construction

Achievement Award Australian Construction Achievement Award -Winner

(BG&E and Arcadis Joint Venture)

#### Smithfield Bypass

Civil Contractors Federation – Old 2022 Earth Award, Project Value \$75-\$150million – Winner (HDR and BG&E)

#### Armadale Road to North Lake Road Bridge

Master Builders-Bankwest Excellence in Construction Awards Best Civil Engineering Works Over \$100.000.000 - Winner

Construction on a Challenging Site – Winner

(Laing O'Rourke, Main Roads Western Australia (WA) and BG&E)

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#### 2021

#### Sheikh Khalifa Bin Salman and Sheikh Isa Bin Salman Highways

- Widening and Intersections Improvement 2021 National MEED Project Awards

Road Project of the Year – Winner (Mashreg and BG&E)

#### Murdoch Drive Connection 2021 WA Civil Contractors Federation Earth Awards

Project >\$75M – Winner (Main Roads WA, CPB, Georgiou, WA Limestone, GHD, AECOM and BG&E)

#### 2020

WA Museum Boola Bardip 2020 Western Australian Steel Excellence Awards Buildings: Large Projects – Winner

Yandhai Nepean Crossing 2020 Engineers Australia Excellence Awards

Design Innovation – Winner

#### Sydney Metro - Temporary Pedestrian Bridge at Martin Place 2020 NSW/ACT Steel Association Awards High Commendation

Sydney Metro City and Southwest 2020 International Tunnelling and

Underground Space Association Awards Major Project >£500M – Winner (Arcadis, John Holland, CPB, Ghella and BG&E)

#### 2019

#### Yandhai Nepean Crossing

2019 Consult Australia Awards for Excellence Design Innovation – Highly Commended

#### The Opus

2019 Council on Tall Buildings and Urban Habitat Awards for Excellence Best Tall Building <100 Metres Award -Winner

(Omnivat Middle East Real Estate Developments LLC, Dubai and BG&E)

#### Mandurah Bridge Replacement Proiect

2019 Concrete Institute Australia Awards for Excellence Concrete Infrastructure Project Category – Winner (Main Roads WA, City of Mandurah,

### Georgiou Group and BG&E)

Ellenbrook Water Tank 2019 Concrete Institute Australia Awards for Excellence Concrete Infrastructure Project Category – Winner

#### 2018

#### **Principal Tower**

2018 Concrete Society Awards for Excellence, United Kingdom Highly Commended (Careys, M-Tech, Multiplex and BG&E)

#### **Optus Stadium**

2018 Master Builders Australia Awards National Award for Building and Construction – Winner (Multiplex and BG&E)

#### Perth City Link Bus Project

2018 Engineers Australia Engineering Excellence Awards WA Division – Finalist (Public Transport Authority WA,

Brookfield Multiplex and BG&E) Old Mandurah Traffic Bridge

2018 Engineers Australia Engineering Excellence Awards WA Division – Finalist

#### Ipswich Motorway Upgrade: Rockleato-Darra Stage 1

2018 Consult Australia Awards for Excellence Project Team Collaboration – Highly Commended External Stakeholder Engagement -Highly Commended 2018 12D International Innovation

Awards 12D Synergy - Winner

(Cardno and BG&E)

#### The Opus

2018 Consult Australia Awards for Excellence

Design Innovation – Highly Commended

#### EY Centre/200 George Street, Sydney 2018 Council on Tall Buildings and

Urban Habitat **Construction Award – Winner** 

**Green Square Library and Plaza** 2018 Engineers Australia Engineering Excellence Awards

NSW Innovation Award – Winner

#### Stuart Cook

2018 Consult Australia Awards for Fycellence Future Leader Award – Winner 2018 Engineers Australia Engineering Excellence Awards Young Professional of the Year Award – Winner

#### 2017

#### Parmelia House

2017 Master Builders of Australia Excellence in Construction Award Best Refurbishment/Renovation <\$10M (The Buchan Group, IA Group, Wood & Grieve Engineers, CBRE and BG&E)

#### **Perth City Link Bus Port**

2017 WA Civil Contractors Federation Farth Awards Excellence in Civil Construction Award -Winner

#### **Gateway WA Perth Airport and** Freight Access Project

2017 Concrete Institute of Australia Awards for Excellence WA Infrastructure Project Category -Winner

(Main Roads WA, CPB, Georgiou, GHD, AECOM and BG&E)

#### **Reid Highway Bridges Over Mitchell** Freeway and Malaga Drive

2017 Concrete Institute of Australia Awards for Excellence WA Infrastructure Project Category -Winner

#### 2016

#### BG&E

2016 Consult Australia Awards for Excellence Medium-Sized Firm of the Year – Winner

### **Gateway WA Perth Airport and**

Freight Access Project

2016 WA Civil Contractors Federation Awards

Project Infrastructure - Winner (Main Roads WA, CPB, Georgiou, GHD, AECOM and BG&E)

#### Reid Highway Upgrade

2016 Winner WA Civil Contractors **Federation Awards** Earth Award – Winner (Georgiou and BG&E)

#### 2015

#### Bridges in Mambo and Tema, Tanzania

Societal Impact Award – Winner

Great Eastern Highway – Bullabullingto-Coolgardie 2015 WA Civil Contractors Federation Earth Awards

Category 3 \$10-30M – Winner (Brierty for Main Roads WA and BG&E) Port Hedland Bridges 2015 WA Civil Contractors Federation Earth Awards

Category 4 \$30-75M – Winner (Georgiou for BHP Billiton and BG&E)

#### **Great Northern Highway** Realignment 2015 WA Civil Contractors Federation

Earth Awards Category 6 >\$150M – Winner (John Holland for Main Roads WA and BG&E)

#### Ichthys Liquefied Natural Gas and Liquefied Petroleum Gas Storage Tanks

2015 Concrete Institute of Australia Awards for Excellence Award for Excellence in Concrete -Winner

#### Addax Tower

2015 Concrete Institute of Australia Awards for Excellence Highly Commended

### 2014

2013

BG&E

Excellence

BG&E 2014 Consult Australia Awards for Excellence

#### Luxe Apartments

2014 Consult Australia Awards for Excellence Gold Award Technological Innovation Award – Winner

2015 BRW and PwC Aspire Awards

Medium-Sized Firm of the Year – Winner

2013 Consult Australia Awards for

Medium-Sized Firm of the Year - Winner Sustainability in Design Award - Winner

#### **QEII Central Energy Plant**

2013 Engineers Australia Engineering Excellence Awards WA Division, Infrastructure & Building Category – Highly Commended

2012

BG&E 2012 Consult Australia Awards for Excellence Medium-Sized Firm of the Year – Winner Gateway WA 2012 Engineers Australia Engineering Excellence Awards WA Division, Award for Control Systems, **Reports and Procedures – Winner** (Main Roads WA, GHD and BG&E) Great Eastern Highway – Roe

Interchange 2012 Engineers Australia Engineering Excellence Awards WA Division, Award for Management of Engineering – Winner (Main Roads WA, Macmahon

Contractors and BG&E) **Curtin University Engineering** Pavilion

2012 Australian Steel Institute Awards for Excellence WA Division Large Building Category -High Commendation

Rise Multi-Purpose Facility 2012 Master Builders Association of Australia Awards for Excellence WA Best Public Use Building >\$10M -Certificate of Commendation (Pindan and BG&E)

**Emirates Park Tower** 2012 Consult Australia Awards for Excellence Export Category – Highly Commended 2012 Engineers Australia Engineering Excellence Awards Sydney Division, Excellence Award -Finalist **Fiona Stanley Hospital** 2012 Consult Australia Awards for Excellence

Client Focus Category - Gold Award 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 850 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.



