



SMARTER  
HVAC  
SOLUTIONS

Built in certainty



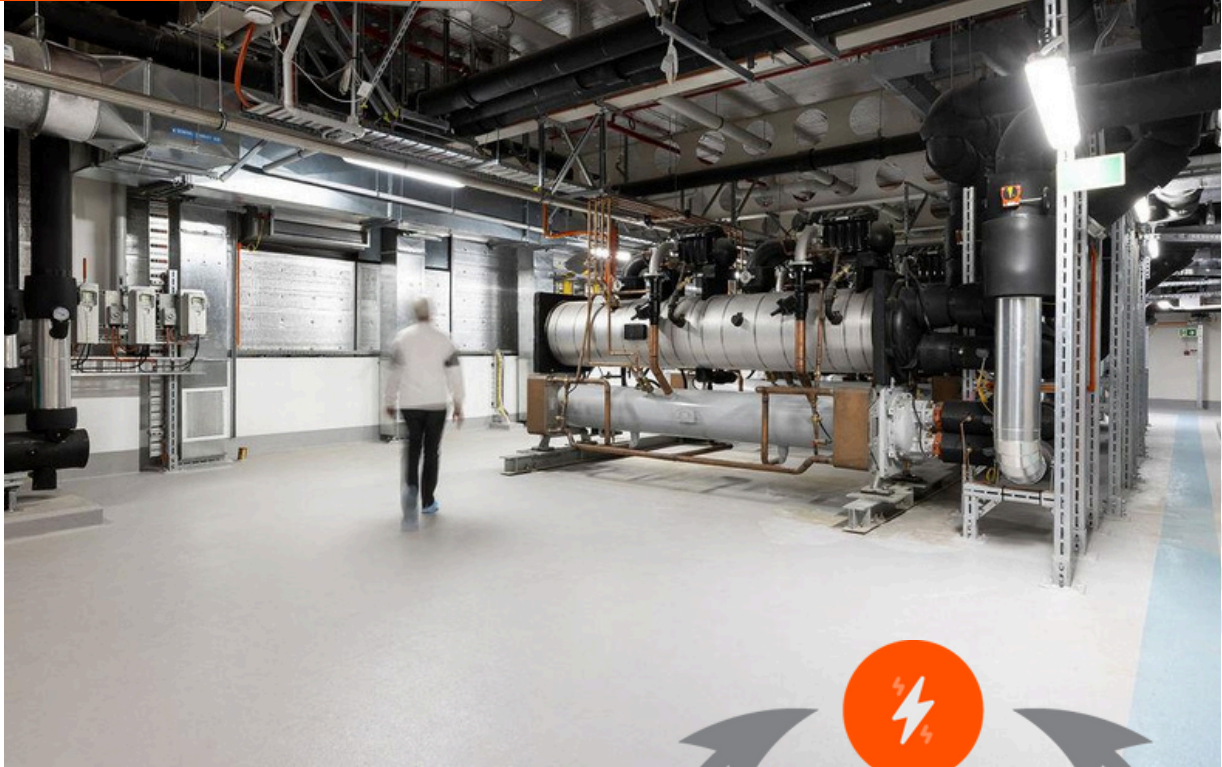
## VAE Capability Profile

Commercial Office Buildings

March 2025



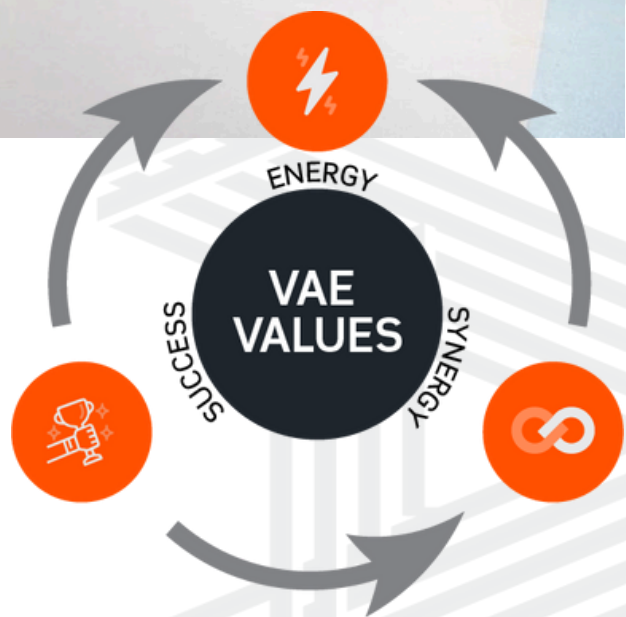
## ABOUT VAE



VAE Group is a leading provider of Heating, Ventilation, Air Conditioning (HVAC), and Building Technology solutions, with a history dating back to 1997. Today, we employ over 400 professionals across 12 office locations in Australia, New Zealand, and Papua New Guinea.

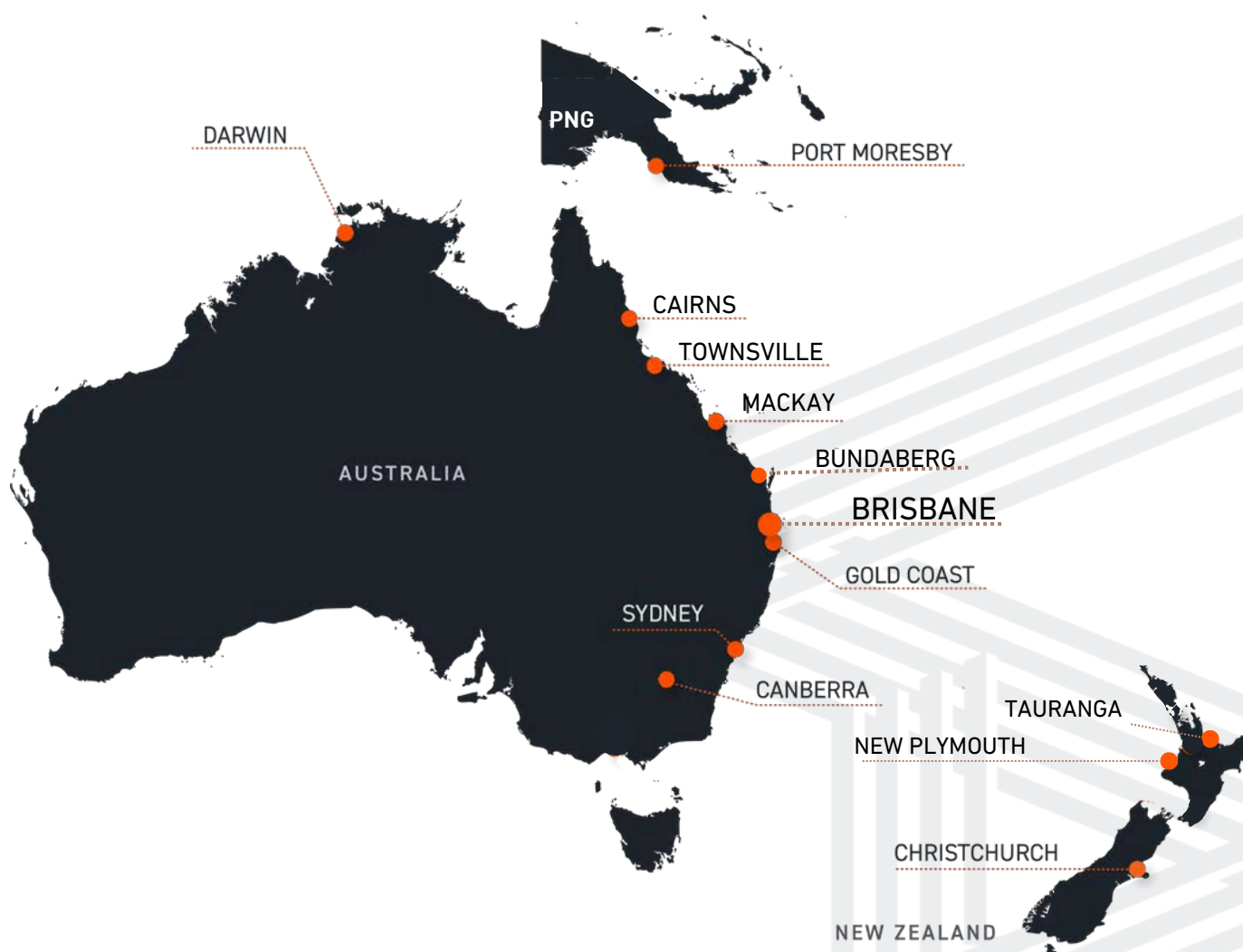
As a Tier 1 building solutions company, we are committed to upholding the highest standards of trust and integrity. We collaborate closely with our clients to develop customized solutions that meet their specific project requirements. Our expert staff are driven by a genuine passion for delivering outstanding results. This energy fosters innovative thinking, promotes efficient performance, and cultivates positive relationships.

Our team is comprised of in-house project managers, mechanical design engineers, and automation engineers. We have in-house drafting, and commissioning capability, as well as full mechanical and automation maintenance servicing capability.



At VAE Group, we stand behind our promise to provide **"Built in Certainty"** for all clients and stakeholders. With a strong track record of delivering high-quality and innovative projects, we strive to deliver solutions that offer lasting value. VAE is committed to providing the highest level of service and delivering solutions that exceed our clients' expectations.

## LOCATIONS



### LOCATIONS

VAE Group provides services across Australia, New Zealand, throughout the Torres Strait and Papua New Guinea. With over 450 staff based across 12 branches, our company has the capacity to support national and regional clients and a range of site sizes and facilities.

### SECTORS

VAE Group work across a range of sectors including:

- Aged Care
- Airports
- Commercial Buildings
- Corrections
- Data Centres
- Defence
- Education & Universities
- Health Care & Allied Services
- Hotels and Resorts
- Industrial
- Infrastructure
- High density Residential
- Sporting & Public Venues
- Local and State Government.

### PEOPLE

Our people are our strength and we firmly believe in developing our own in-house talent, empowering our employees to fulfill their potential. Our team are mentored, trained and respected, and we provide everyone with career and personal development opportunities.

## VAE EXPERTISE

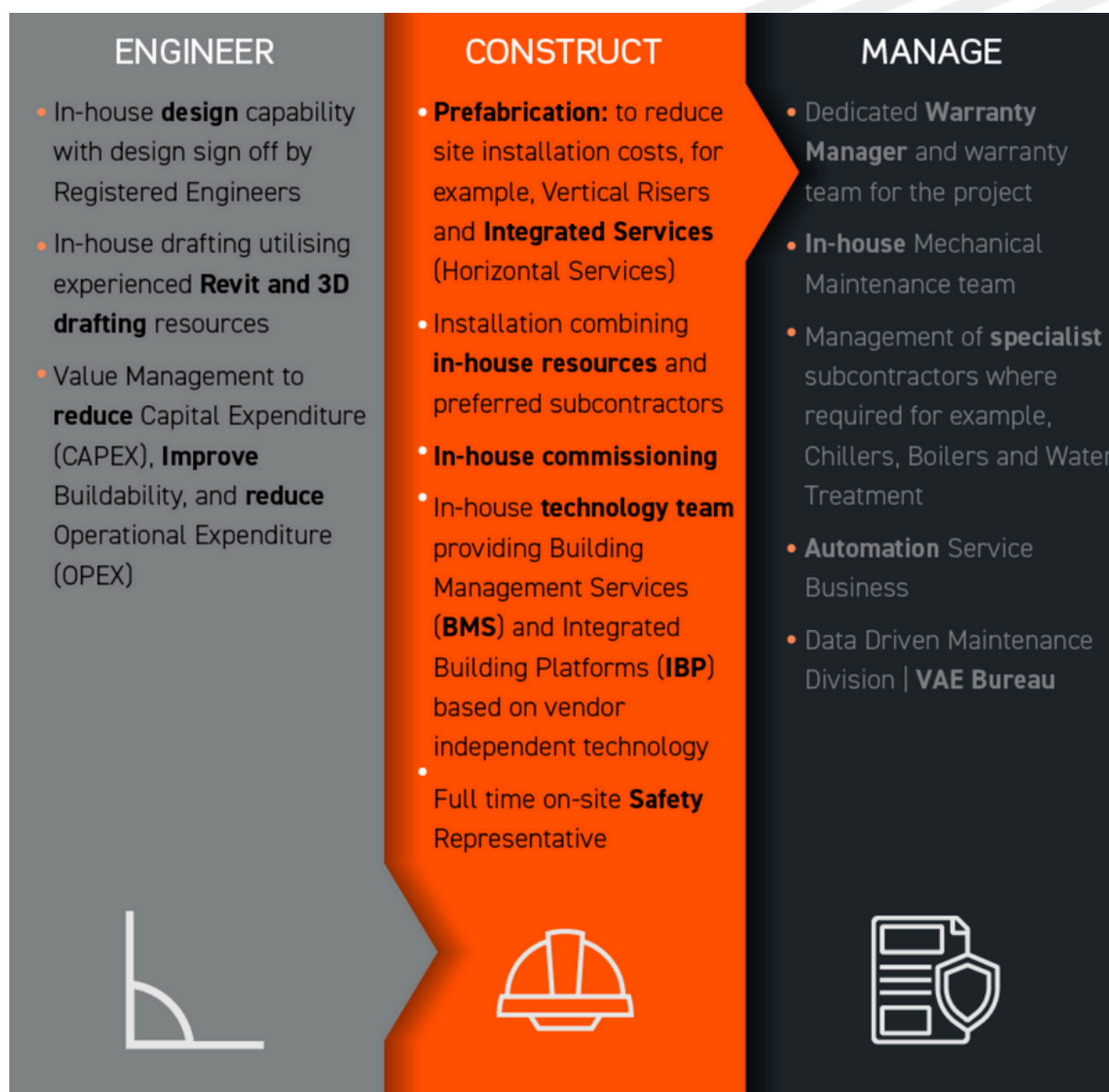
VAE Group have undertaken a variety of commercial office projects throughout Queensland, Northern Territory, NSW, ACT and New Zealand.

Our recent commercial office projects feature groundbreaking developments such as 90 Davenport Rd in Tauranga, NZ, alongside notable projects like One City Hill in Canberra, Ergon Energy's 420 Flinders St in Townsville, the iconic Midtown Centre in Brisbane's CBD, and the state-of-the-art Integrated Building Platform for Sydney's Quay Quarter Tower.

Many of these projects set the industry benchmark for 5 Star Green Star and NABERS-rated buildings. At VAE, we take pride in delivering cutting-edge engineering and technology solutions that create high-performing built environments. With expertise in the complexities of Green Star design, we specialise in providing Smarter HVAC Solutions that enhance efficiency and sustainability.

In every project, VAE has showcased our ability to collaborate closely with clients, tailoring solutions to their specific needs while upholding our core value—delivering Built in Certainty.

Value Added Engineering (VAE) are able to provide customers with extensive in-house Design, Engineering and Delivery capabilities to ensure that these complex projects are delivered in a cost effective, energy efficient and professional manner with an emphasis on safety.





## INNOVATION AND SAFETY



VAE Group is recognised as a leader in safety within our industry. We place the highest priority on the safety and well-being of our employees and subcontractors and take every measure to minimize their exposure to unnecessary risk. Our comprehensive approach to safety, which is a cornerstone of our company culture, is known as ...

"Safe at Work | Safe at Home | Mental Health,"

### Technology

We specialise in delivering Integrated Building Platforms (IBP), which seamlessly integrate all building services into a single user interface. Our solutions improve overall communication and coordination between different building systems, resulting in greater energy efficiency, improved occupant comfort, and reduced operating costs. By providing a holistic view of building operations, we enable building owners and operators to make informed decisions and optimise the overall performance of their buildings.

### Training

We invest heavily in the training, equipment, and competencies of our employees to ensure they can identify and mitigate risks before they arise. We recognize that the safety of our employees extends beyond the workplace, and we are committed to ensuring they arrive at and return home from work safely. To this end, we place a strong emphasis on vehicle maintenance, proper licensing, and ensuring our staff are fit and capable, no matter their location.

### Certification

Our safety philosophy continues throughout the business and have implemented an accredited Occupational Health and Safety Management System that complies with ISO 45001. This system is audited by SAI Global and is integrated with our Quality Management System (ISO 9001 accredited) to ensure policy consistency and a culture of continuous improvement. Our Environmental Management System has been developed against the requirements of ISO14001 to improve our customers environmental performance and demonstrate commitment to sustainability.



## TECHNOLOGY SUITE



Our technology teams work with our mechanical teams to develop solutions that work, and our expert staff have an authentic passion for delivering outstanding results. This energy drives innovative thinking, efficient performance, and positive relationships.

VAE Group are a Tridium, Niagara and Distech approved systems specialist and we also have extensive experience in upgrading and integrating legacy systems using truly open protocol platforms which allows multiple BMS providers to easily service your facility and provide a more competitive and comprehensive service level.



VAE Bureau is a unique product specifically created for our customers, and it is our aim to empower end users by providing them with tools and capabilities to predict energy consumption and compare performance across their portfolio. In providing this service, our clients can make informed decisions to save energy and optimise capital replacements.

VAE Bureau uses advanced data analytics to gain insights into energy consumption patterns, identify areas of inefficiency, and make data-driven decisions to reduce energy usage and associated costs. Using our comprehensive reporting and analysis, users can monitor and track their energy performance, benchmark against industry standards, and identify opportunities for improvement.

Additionally, our in-house sustainability team actively engages with clients to understand specific objectives and working collaboratively to develop strategies which align with their goals. With the information generated by our tools, the sustainability team can provide valuable recommendations, implement energy-saving initiatives, and track continuous improvement over time.



## GREEN STAR & NABERS RATING

VAE has successfully completed several 5 star Green Star and NABERS rated buildings. We understand the complexities involved in designing a Green Star building and specialise in providing Smarter HVAC Solutions.

With a team of engineers who have extensive experience on both Green Star and NABERS projects, VAE provides the link between detailed design, installation, commissioning, fine tuning and servicing of HVAC systems and this in turn provides consistent, cost effective and reliable mechanical solutions.



### Green Star and NABERS Experience

#### Verde Tower, Townsville

11 Level PCA Premium Grade, 11,500sqm  
Commercial office building | \$5.5M

**Green Star Rating: 5 | NABERS Rating: 5.5**

#### 420 on Flinders (Ergon Energy Head Office)

9 Level PCA A-Grade, 7,000sqm Commercial  
office building | \$4.2M

**Green Star Rating: 5 | NABERS Rating: 5**

#### Riparian Plaza, Brisbane

53 Level PCA Premium Grade, 30,000sqm  
Commercial office building | \$2.8M

**NABERS Rating: 5**

#### 150 Charlotte Street, Brisbane

18 Level PCA A-Grade, 11,049sqm  
Commercial office building | \$4.5M

**Green Star Rating: 5 | NABERS Rating: 5**

#### 41 O'Connell Terrace

6 Level Commercial office building | \$5M

**Green Star Rating: 5 | NABERS Rating: 5**

#### Corporate Centre 1 - Bundall

16 Level PCA A-Grade,  
Commercial office building | \$1M

**NABERS Rating: 4.5**

#### Education Gateways Building (Edgy)

University of Southern Queensland Multi-  
purpose Building | \$5.6M

**Green Star Rating: 5**

#### 900 Ann Street - Aurizon

15 Level PCA Premium Grade, 23,000sqm  
Commercial office building | \$5.6M

**Green Star Rating: 5 | NABERS Rating: 5.5**



## OUR SERVICE DELIVERY ...

### Whole of Life Asset Management

- End to End Heating, Ventilation and Air Conditioning Services
- 24 Hour Emergency Breakdown
- Response Reactive and Planned Maintenance
- Whole of Life Asset Management
- Chiller Repairs, Maintenance and Upgrades
- Refurbishment and Fitout including Design, Construction and Engineering of New and Established Sites
- Essential Services Certification and Advice
- Building Compliance and Auditing Services to Identify Performance and Cost Efficiencies
- Consultation, Assessment and Assurance Programs for NABERS and Greenstar Rating Certification and Management
- Remote Monitoring of Buildings Including Identification of Faults, Performance, Sustainability Trends and Issues Diagnosis.
- Advanced Technology Platforms Helping You to Better Understand Your Building Assets Performance, Sustainability and Comfort.

“VAE provide smarter, simpler HVAC solutions.”

## OUR CUSTOMERS ...





## CONTACT DETAILS

### BRANCH CONTACTS

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### REACH OUT ON SOCIALS



## 205 North Quay, Brisbane

Client: Hutchinson Builders

Contract Value \$25.87M

Completion: 2025

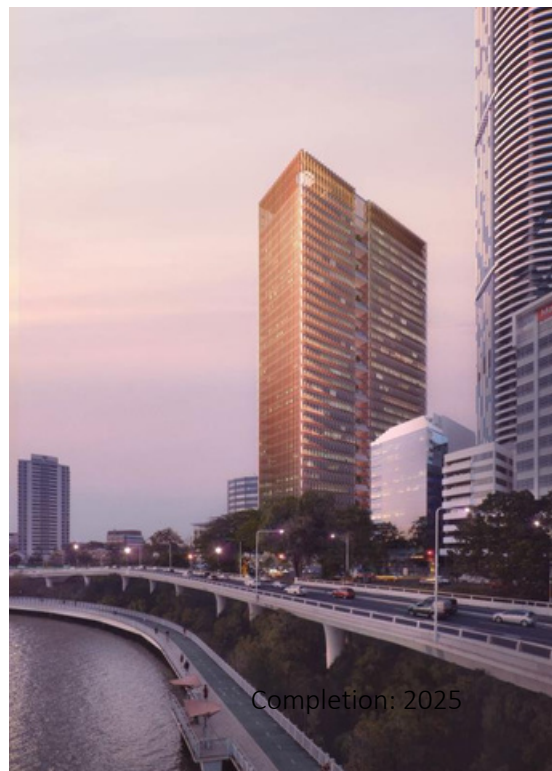
VAE are elated to be working with Hutchinson Builders on the new 38-storey 205 North Quay building, located on the river's edge in Brisbane's CBD. The circa \$275M building is being developed by Cbus Property & Nielson Properties.

VAE have been contracted by Hutchies for the Design & Construction of the Mechanical Services for the 43,700 sqm office NLA

205 North Quay will offer world-class amenities, including a whole-floor wellness facility, 25-metre lap pool, childcare facilities, a public realm auditorium, outdoor terraces on every level, and rooftop collaboration and celebration facilities.

205 North Quay is targeting a 6 Green Star rating and 5.5star NABERS Energy rating. As part of this goal, the contemporary design for the tower will efficiently reduce energy, waste and water usage, control midday, afternoon, and early evening sun through a highly articulated facade, incorporate LED lights and sensors and use regenerative lifts.

Construction has commenced, with completion anticipated for late 2024.



Completion: 2025

## 31 Duncan Street, Fortitude Valley

Client: Hutchinson Builders

Contract Value \$8.18M

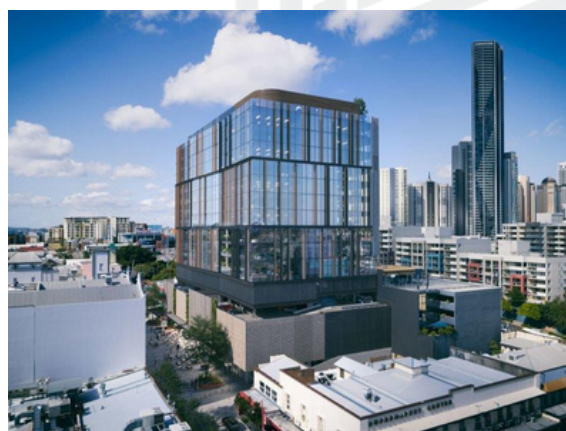
Completion: 2023

VAE are thrilled to be working with Hutchinson Builders on the new 31 Duncan Street building, designed to sit above the existing Chinatown Mall Carpark in Fortitude Valley, Brisbane.

The circa \$82M building is developed by Tribune Properties, revitalising the area, and providing a much-needed infusion of commercial daytime activity.

Sustainability principles have been integrated into the design, by Nettleontribe, embracing the sites sub-tropical climate including a sky terrace, elevated gardens, winter garden balconies, shading devices, operable façade, and natural ventilation.

The office tower boasts large floorplates allowing for consolidation of services and business areas, as well as the impressive rooftop facility for tenants, including gym and running track.





## One City Hill, Canberra

Client: Morris Property Group

Contract Value \$12.2 m

Completion: 2023

VAE are thrilled to be expanding our presence in Canberra by working with Morris Property Group on an exciting new development located on Vernon Circle, City Hill Canberra.

Set to be completed in the second half of 2023, Morris Property Group are developing a new \$380 million, seven story commercial office complex. The striking new building features a curved, 25-metre-high frontage to Vernon Circle, double-height corridor, and textured louvre screen.

Developed across two connected buildings, the 34,000sqm commercial office building with rooftop solar panels and a highly efficient glazing system will be targeting 5 Star GreenStar rating and 5 Star NABERS Energy ratings.

VAE have been contracted on a Design and Construction basis following the successful completion of the early works contract for the One City Hill carpark.



## 895 Ann Street, Fortitude Valley

Client: Hutchinson Builders

Contract Value \$8.45m

Completion: 2023

VAE are delighted to be working with Hutchinson Builders on the new 895 Ann Street building, located in Fortitude Valley, Brisbane. The circa \$260M building is being developed by Consolidated Properties in partnership with global real estate investment managers DWS.

VAE have been contracted by Hutchies for the Design & Construction of the Mechanical Services for the 21,000 sqm, 15 level, PCA A-Grade commercial office building, due for completion in April 2023. The building's environmental credentials will target a 5 Star Green Star and 5.5 Star NABERS energy rating.

The building has a striking dual frontage glass façade and will have flexible floorplates ranging from 1300 sqm to 1500 sqm. Tenants will enjoy a number of innovative features including a rooftop bar to create a highly desirable place to work.



## 12 Creek Street, Brisbane Fit-Out

Client: FDC Construction

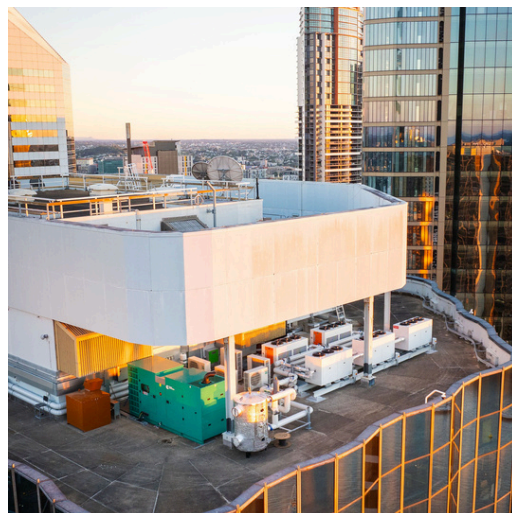
Value: \$2.4M

Completion: 2024

### Overview

The 12 Creek Street Fit-Out project highlights the major shift towards remote site facilities occurring throughout the Australian Mining Industry, fueled by the evolving capability to provide cutting edge technology solutions, complimented with human-focused design, to deliver a truly modern facility.

VAE were awarded this fast tracked project by FDC encompassing the comprehensive design, installation, commissioning, and ongoing maintenance of mechanical services across levels 26 and 27, including the rooftop HVAC plant. The project's scope encompassed the installation of air conditioning systems, chilled water systems, and ventilation, as well as the integration of VAE's Building Management System (BMS). This integration was crucial for ensuring efficient operation and continuous 24/7 support for critical areas, including the ROC control center and server rooms.



### Project Scope

The fit-out focused on levels 26 and 27 of the building. Level 26 was meticulously designed to facilitate 24/7 operations, featuring N+1 redundancy specifically tailored for the ROC control center. This redundancy ensures that critical operations can continue seamlessly in the event of a system failure. Conversely, Level 27 was allocated for general office spaces, which operated during standard office hours.

### Modifications and Installations

To meet the specific needs of the ROC fit-out, both existing building systems were modified, and new mechanical systems were installed. This included advanced air conditioning units and ventilation systems designed for optimal performance and reliability.

### Logistics and Execution

VAE leveraged its in-house rigging and logistics capabilities to transport five modular chillers to the rooftop. This process involved utilizing the existing building goods lifts along with available gantries and soft hatches, ensuring a safe and efficient delivery to the installation site. FDC's knowledge of the building and available services expedited this process and allowed for the seamless execution of the logistics, which was crucial in minimizing disruption to ongoing operations and maintaining the project schedule.

### Solution

- Chilled Water System: Consisted of 5x Modular Air Cooled Chillers, Provided cooling in an N+1 arrangement, managed by the BMS for efficient operation with future redundancy capability.
- Chilled Water Fan Coil Units (FCUs): Supplied air conditioning, with the BMS ensuring optimal performance in both critical and general areas (includes redundancies for critical operations areas)
- In-Row Cooling Units: Dedicated to server rooms, with temperature control managed by the BMS.
- Energy Recovery Ventilator (ERV): Supplied outside air and recovered energy, with the BMS adjusting air flow based on demand.
- Variable Air Volume (VAV) Units: Regulated airflow according to occupancy and environmental conditions, controlled by the BMS.

“

The successful completion of 12 Creek Street ROC exemplifies what can be achieved when cutting edge technology meets human centric design to create a state of the art facility.

~ FDC Management Team



## 80 Ann Street – Building Integration Platform

Client: Mirvac

Contract Value: \$2.75M

Completion: 2022

Mirvac's new 35 storey, 60,000 sqm Premium office building located at 80 Ann Street in Brisbane has become the corporate headquarters for Suncorp.

As both the building owner, developer and builder Mirvac awarded the VAE Group the Master System Integrator contract to provide an Integrated Building Platform (IBP) for the site.

The future-proofed infrastructure and data capacity in the base building makes 80 Ann one of Australia's most advanced intelligent buildings, projected to collect over 90 billion data points daily.

Utilising the latest innovations in building technology, the 80 Ann Street is engineered to perform in a digitally enabled environment connecting people to place. This digital environment allows businesses, staff, and visitors of 80 Ann Street a personalised connection with the building, each other, and the precinct connecting all building technologies into one seamless environment.

The primary objective of the IBP is to provide open access to the wealth of data available within each system throughout the facility, allowing tenants and building management to continuously improve the operating efficiencies and long-term performance of the building.

The open-source infrastructure allows applications such as alarm monitoring, graphical displays, reporting, billing, analytics, mobile devices, energy management and workflows, as well as maintenance and fault detection, to access both live and historical data.



## Quay Quarter Tower, Sydney

Client: Multiplex

Contract Value: \$1.75M

Completion: 2022

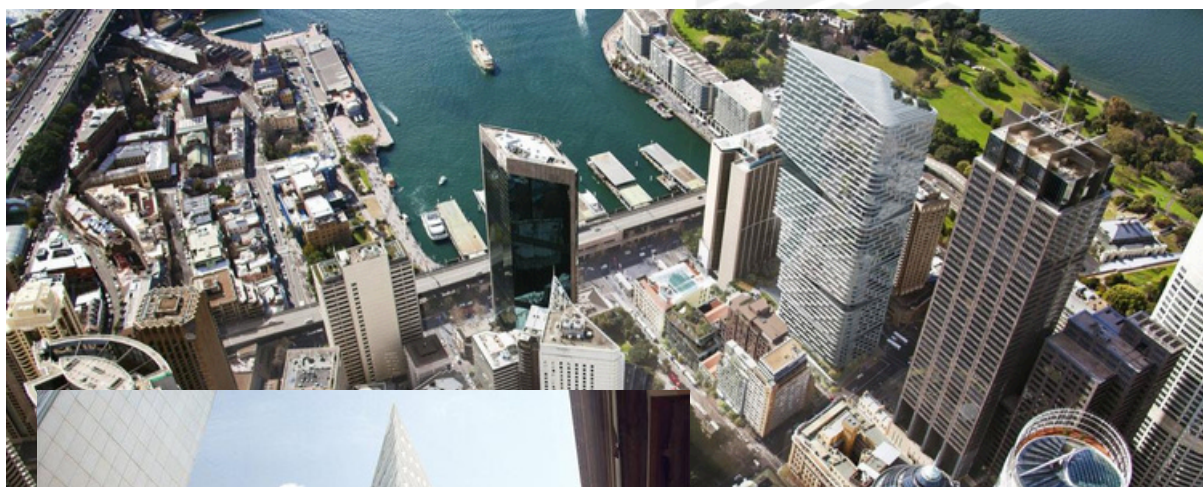
Multiplex awarded VAE Group the Master System Integrator on Quay Quarter Tower (QQT) Project in Sydney.

The 50-storey commercial building, offering 90,000 sqm of premium-grade office space, reshaping Sydney's skyline. The 200-meter-high tower, designed by Danish architects 3XN, comprises a series of shifting glass volumes stacked upon each other to provide a striking façade and an atrium that cuts all the way through the building.

QQT is a bold facilitator of corporate change, It's ambitious, and visionary, a workplace of the future.

Utilising the latest innovations in building technology, the Tower is engineered to perform in a digitally enabled environment connecting people to place. This digital environment allows businesses, staff, and visitors of Quay Quarter a personalised connection with the building, each other and the precinct connecting all building technologies into one seamless environment.

The tower features the latest in commercial office technology and is targeting 6-star Green Star and 5.5 NABERS ratings.





## The Landmark Sydney, St Leonards

Client: Hutchinson Builders

Contract Value \$11.52M

Completion: 2022

Working with Hutchinson Builders, VAE Group completed the mechanical services on The Landmark in St Leonards.

At 43-storeys, The Landmark is an iconic residential high-rise defining Sydney's North Shore Skyline and is currently the tallest tower in St Leonards.

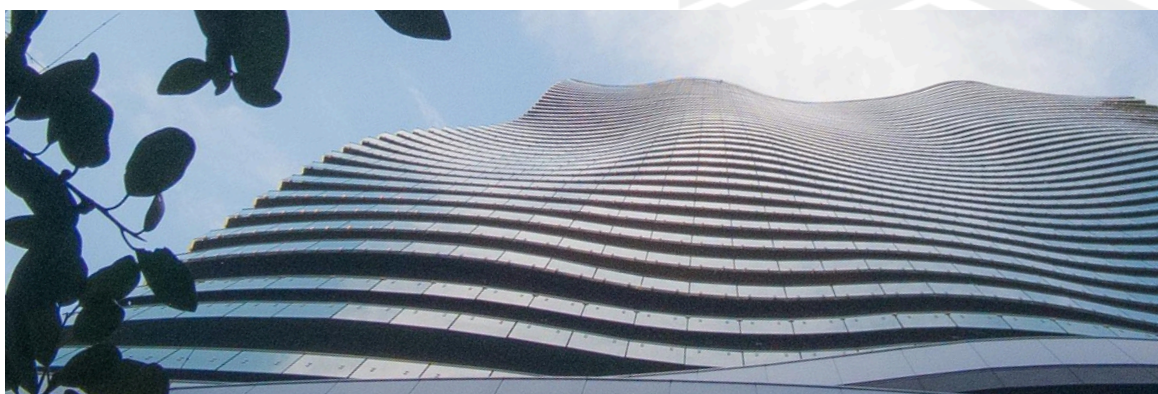
The Landmark offers several wow factors that VAE are thrilled to be a part of constructing, including an indoor virtual golf driving range, gym, swimming pool, several children's play areas, a library and much more.

The residents of The Landmark also benefit from the state-of-the-art technology inclusions such as car share services, vehicle charging bays, sustainability features including rooftop solar panels, harvested rainwater for irrigation, and smart home automation as part of the project.



The project includes 495 residential dwellings, 528 car parks, and upgrade works to Friedlander Place – a 1600m<sup>2</sup> public space below The Landmark tower.

**Project Referee:** Nikolas Cox, Hutchinson Builders | [nikolas.cox@hutchinsonbuilders.com.au](mailto:nikolas.cox@hutchinsonbuilders.com.au)





## Midtown Centre, Brisbane CBD - Mechanical Services

Client: Hutchinson Builders

Contract Value \$24.3M

Completion: 2021

Hutchinson Builders awarded VAE the mechanical services contract for Midtown Centre project in Brisbane's CBD. In what is believed to be an Australian first, The Midtown project will merge two existing buildings into one single, 26-storey, 41,000sqm PCA A grade office building.

The merger of two old government buildings (Health and Forestry House) involves the infill of the 20- meter space between the existing building forming one floor plate. Once combined, the existing 19-storey building is then extended to 26 levels with a common floor plate to form the Midtown Centre building.



The original heritage façade on the Charlotte Street side, which dates to the 1890's will be restored and retained as part of the project. The combined building provides large floor plates that incorporate an abundance of natural light as well as a 3-level mixed mode ventilated atrium and 840sqm sky garden on level 20 featuring Queensland sub-tropical landscaping and terraces. The new Midtown Centre will deliver a 5-star Green Star rating as well as a Silver Well rated core and shell.

### Awards this Building has received to-date:

- 2022 The Urban Developer Awards for Excellence in Design & Innovation
- 2022 The Urban Developer Awards for Excellence in Sustainability
- 2022 Master Builders Queensland Award for Commercial Building >\$50M
- 2022 Australian Institute of Building Queensland High Commendation for Commercial Construction >\$60M
- 2022 Australian Institute of Building Qld Award for Commercial Construction \$25M-\$50M (Rio Tinto Fitout)
- 2022 Australian Institute of Architects & Brisbane Lord Mayor Award for 'Brisbane Buildings that Breathe'
- 2022 Master Builders Queensland Housing & Construction Awards Commercial Building over \$50M
- 2022 Master Builders Brisbane Housing & Construction Awards Commercial Building over \$50M

## 101 Miller St, North Sydney – Chiller Plant Upgrade

Client: Mirvac

Contract Value \$1.2m

Completion: March 2020

VAE Group were engaged by Mirvac to undertake Replacement of the Chilled Water Plant at the 35-storey 101 Miller Street, North Sydney.

We removed two redundant Trane chillers, and associated pipework, pumps, and electrical switchboards and replaced them with new equipment.

Two new 1250kW SMARTD water cooler chillers were installed. New pipework was constructed to suit the new layout of the chillers, reducing the footprint, and allowing more space for an additional chiller to be installed in the future.

Our internal electrical, mechanical and automation engineers, and drafting team designed and engineered upgrades for seamless changeover and operation of the plant.

VAE also supplied and installed a Tridium (Distech) based plant management system to control the central chilled water plant. This system was designed, engineered, and is now maintained by our in-house automation team.

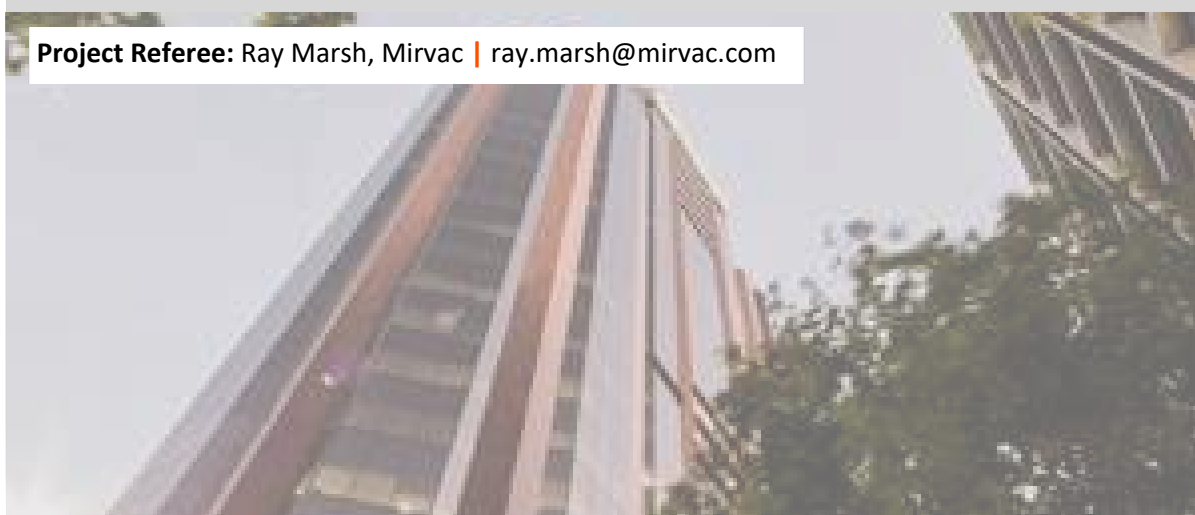
Low Load Cooling Tower noise was a big concern for the building. VAE designed and installed a Cooling Tower staging system to allow for reduced operational usage of the cooling towers. This solution added great value to the site and reduced the need for expensive noise attenuation.

VAE offered a distinctive point of difference providing experienced key technical staff, methodology, and engineering expertise. Presenting our client with one point of contact for the engineering, construction, warranty, and long-term maintenance of their critical infrastructure.

### Key Achievements:

- Strong understanding of the operational risk involved in working within a live operational environment, with a flexible delivery approach
- Development of staging strategy to ensure minimal disruption of daily building operations
- In-house engineering and drafting team designed and engineered the upgrade with our Engineer / Construct / Manage HVAC delivery methodology.
- We offered Mirvac a unique solution to their plant room challenges

**Project Referee:** Ray Marsh, Mirvac | [ray.marsh@mirvac.com](mailto:ray.marsh@mirvac.com)





## Manunda Place, Darwin CBD

Client: Hutchinson Builders

Contract Value \$7.27M

Completion: 2020

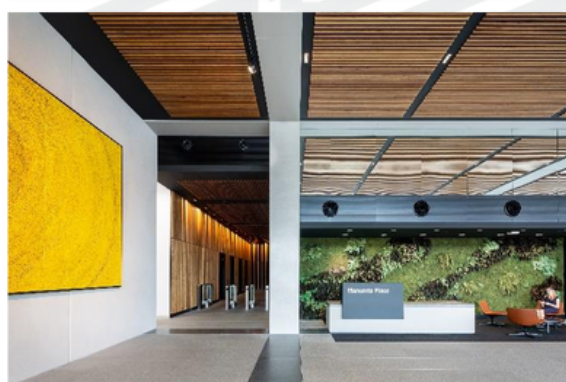
Select Services, VAE Group's Darwin Branch were thrilled to work with Hutchinson Builders to provide the design and construction of the mechanical services and Building Management System (BMS) for Manunda Place located in Darwin's CBD.

Manunda Place provides additional PCA A-grade office accommodation for the NT Government and has changed the face of the Darwin CBD. Construction of the nine-storey building on the corner of Knuckey and Cavenagh Streets started in January 2019. The project also involved the construction of a new five level multi-storey carpark on Litchfield Street.

The plantroom is located on the rooftop at Manunda Place, and the web based BMS integrates all mechanical services, monitoring of hydraulics services, lifts, and fire services

The mechanical services VAE undertook include:

- Two 820kW Smardt Water Cooled chillers
- Evapco Cooling Towers
- Two CHW Pumps
- Two Condenser Water Pumps
- BMS with energy monitoring for NABERS assessment
- Two perimeter Zone AHUs
- Two Center Zone AHUs
- Two Outside Air Pre-conditioning units
- Two Stair Press Fans mounted at the top of each stairwell
- Roof mounted Smoke Exhaust fan, serving the office levels
- Four Roof Mounted Fans (TEXH x 2, Gen EH x 1, Retail KEXH)
- Plantroom EXH controlled from refrigerant detector
- Passive ventilation to the lift shafts



## Macquarie Park IBP, Sydney

Client: John Holland Group

Contract Value: \$1.7M

Completion: 2020

The new commercial office development at 45-61 Waterloo Rd will be one of Australia's most contemporary business precincts.

Located in the heart of Macquarie Park's commercial precinct, opposite the train station, the multi-building complex will offer a captivating work environment with a combination of contemporary prime office space in a parkland setting.

VAE Group were engaged by John Holland Group to undertake the design and construction of the Integrated Building Platform (IBP) on the nine-storey, 35,000 sqm commercial Building 'C', also known as The Glasshouse.



The 5 Star Green Star building incorporates a substantial light filled atrium, A grade specification augmented with smart technology, state-of-the-art End of Trip facilities, and 367 car spaces.



## 900 Ann Street, Brisbane - Aurizon

Client: Hutchinson Builders

Contract Value: \$12m

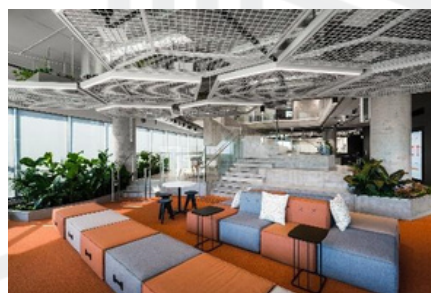
Completion: 2018

Aurizon's new headquarters building located at 900 Ann Street is an A Grade 19,450m<sup>2</sup> commercial office tower located in Brisbane's Fortitude Valley. The entire 15 floors of office accommodation have been rented by Aurizon and is designed to achieve a 5-star Green Star design rating.

Hutchinson Builders contract was to design and build an iconic office building for Charter Hall and Consolidated Properties Group. VAE was contracted by Hutchinson to provide Mechanical Design and Construction and take the lead coordination role for all services, including the integrated fit out.



Major design changes to the base building added to the complexity of the 900 Ann Street project. Changes incorporated the addition of an all-encompassing 10-level atrium during the fit-out phase. This extensive design change introduced major mechanical and operational impacts that required significant input from VAE's project and design team, whilst maintaining construction continuity, in order to meet tight program deadlines.





## 241 Adelaide Street – Chilled Water Plant Retrofit

Client: Australian Unity

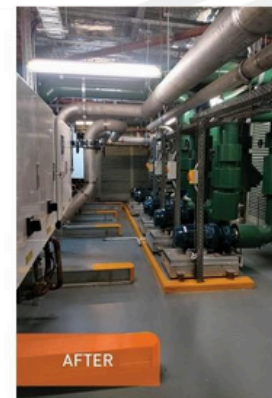
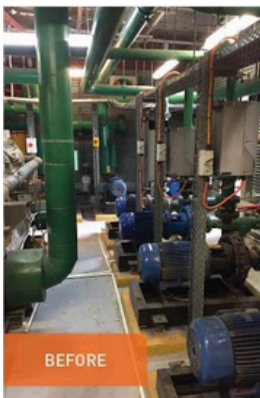
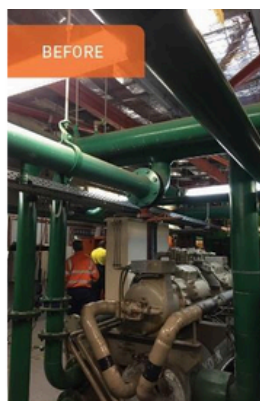
Contract Value \$1.32M

Completion: May 2019

VAE Group were engaged by Australian Unity, working with CBRE on the 24-storey 241 Adelaide Street Air Conditioning Plant Upgrade. VAE removed two deteriorating water-cooled chillers, associated pumps and electrical switchboards and replaced them with new equipment. Two new SMARTD water cooled chillers were installed along with new Masterflow Pumps. Additionally, the chilled water pipe work was completely replaced to back to the risers which improved the overall layout of the plant and increased the expected life cycle of the building. A new Chiller Plant Management System was installed and commissioned to control the new central chilled water plant.

The project was undertaken in an operational environment. Management of downtime was critical to Australian Unity's round-the-clock operations. VAE identified challenges and together with GWA Consultants, altered design implementation, achieving minimal disruption to operations. VAE's in-house engineering and drafting team designed, and engineered the upgrade.

With our Engineer / Construct / Manage HVAC delivery methodology VAE offered Australian Unity a unique solution to their plant room challenges. Our internal electrical, mechanical and automation engineers, and drafting team designed and engineered upgrades for seamless changeover and operation of the plant. The construction, logistics and electrical teams supplied, installed, and now maintain a Tridium (Distech) based plant management system. VAE offered a distinctive point of difference providing experienced key technical staff, methodology, and engineering expertise. Presenting our client with one point of contact for the engineering, construction, warranty, and long-term maintenance of their critical infrastructure.



### Key Achievements:

- Strong understanding of the operational risk involved in working within a live operational environment, with a flexible delivery approach
- Construction of new chiller plant, complete with switchboards, refrigerant exhaust system and cooling tower upgrades
- Development of staging strategy to ensure minimal disruption of daily building operations