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## SMARTER HVAC SOLUTIONS Built in certainty

# VAE Capability Profile PUBLIC, COMMUNITY AND SPORTING 2025

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## **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.

VAE

VALUES



## 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 an enviable track record of successfully delivering public, community and sporting venue projects throughout Australia, New Zealand and Papua New Guinea.

These projects range from large-scale convention and entertainment centres, through to highperformance training facilities for professional sporting teams. We understand that these facilities require extensive coordination between all trades and the importance that the service trades take in delivering a fully operational venue that must cope with large changes in demand.

In each case, VAE has demonstrated our ability to work collaboratively with our clients to suit their project specifics needs and demonstrate our key value of providing our customers with Built in certainty As an engineering-let HVAC company, VAE are able to provide customers with extensive in-house Engineering, Design, Construction and Defects Liability Period (DLP) management for Mechanical Services projects inclusive of comprehensive Building Technology. Importantly, VAE commissioning services are carried out by our in-house VAE team. Our in-house strength ensures that these complex projects are delivered in a cost effective, energy efficient and professional manner with an emphasis on safety.

With the additional use of specialist subcontractor partners for insulation, mechanical electrical and specialist services, VAE perform a rigorous process to validate any potential subcontractors and suppliers involved in our projects including financial and organisational capability, technical ability, and a record of accomplishment.

## ENGINEER

- In-house design capability with design sign off by Registered Engineers
- In-house drafting utilising experienced **Revit and 3D** drafting resources
- Value Management to reduce Capital Expenditure (CAPEX), Improve Buildability, and reduce Operational Expenditure (OPEX)

## CONSTRUCT

- Prefabrication: to reduce site installation costs, for example, Vertical Risers and Integrated Services (Horizontal Services)
- Installation combining in-house resources and preferred subcontractors
- In-house commissioning
- In-house **technology team** providing Building Management Services (**BMS**) and Integrated Building Platforms (**IBP**) based on vendor independent technology
- Full time on-site **Safety** Representative



## MANAGE

- Dedicated Warranty
  Manager and warranty
  team for the project
- In-house Mechanical Maintenance team
- Management of specialist subcontractors where required for example, Chillers, Boilers and Water Treatment
- Automation Service Business
- Data Driven Maintenance
  Division | VAE Bureau

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## **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 (refer page 6.)

#### 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 strong emphasis on place а 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.



### **BUILDING SYSTEM PERFORMANCE**

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.

## SERVICE EXCELLENCE

#### SPECIALIST HVAC SERVICES

VAE specialises in Smarter HVAC solutions and our team of experienced engineers and technicians design, supply, install, commission, service and maintain all mechanical and electrical systems. Our team can also upgrade assets and provide total refurbishment of buildings and facilities.

#### COMPLETE ASSET MANAGEMENT

VAE provide an open and transparent approach to the operating and lifecycle costs associated with your assets, with our systems delivering accurate data analysis for future replacement, CAPEX and OPEX.

#### **SPECIALIST CHILLER SERVICES**

VAE have a team of highly skilled Chiller technicians and can provide aftermarket services for most OEM Chillers. We are a *Powerpax Authorised Service Partner* giving us the ability to conduct preventative maintenance and services, minimising electricity, gas and water usage.

### LEAD TEAM APPROACH

**Built in certainty** 

Role

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Our clients are supported by an appointed Client Services Manager and a Lead Team who are responsible for your account, gaining knowledge and experience of the unique needs of the site.

#### **IN-HOUSE SERVICES DELIVERY**

Having our own in-house Service Team, allows VAE to mitigate risk, provide service continuity and gain a unique understanding of your assets and building, creating cost savings and efficiencies during the asset life cycle.

#### **ESSENTIAL SERVICES**

VAE Essential Services Maintenance covers all regulatory requirements for the inspection of HVAC systems as referenced in the Australian Standards and Airah D19. VAE are a Tridium and Niagara approved Systems Specialists, which for our clients means an easy transition from most suppliers to our services.

#### 24/7 DIRECT DELIVERY SERVICE

Our highly skilled technicians are available 24 hours per day, 7 days per week, and our clients are supported with Emergency Breakdown and 24 hour Australian based Help Desk.

#### **EXISTING BUILDINGS**

The VAE special projects team of experienced engineers and technicians, focus on new installations, retro-fitting existing systems and replacing HVAC assets, analysing your needs and budget to create a tailored solution for your site.

## BUILDING MANAGEMENT SYSTEMS (BMS)

VAE are a Tridium, Niagara and Distech approved Systems Specialist which for our clients means an easy transition from most suppliers to our services.

## TECHNOLOGIES TO HELP YOU UNDERSTAND YOUR ASSET PERFORMANCE

VAE technology gives our clients the ability to track and predict their energy consumption and performance, and compare usage across their portfolio. VAE can also provide technical knowledge and advise through The VAE Bureau



SMARTER HVAC SOLUTIONS Built in certainty

## **CONTACT DETAILS**

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## **REACH OUT ON SOCIALS**



## www.vaegroup.com.au



## Parramatta EELS Club - Centre of Excellence

#### Client: Kane Construction

Contract Value \$2.6M

**Completion: November 2025** 

#### Overview

The Parramatta Eels Centre of Excellence, located in Kellyville, is a new state-of-the-art facility designed to be the largest rugby league facility in Australia. It will house elite training facilities for the NRL and NRLW teams, as well as the Eels Academy. The facility will also include a community centre with a 1,500-seat grandstand and community gym, fostering a "one-club" environment for all levels of the club. The project involves the design and implementation of sophisticated mechanical services for Buildings A and B. These services encompass an extensive range of HVAC systems designed to provide optimal environmental conditions, improve energy efficiency, and align with sustainable building practices. The scope includes the installation of advanced ventilation systems, variable refrigerant flow (VRV) air conditioning units, direct expansion air-cooled systems, and heat recovery systems to maximize energy utilisation and indoor air quality.

Scope of Works

- Variable Refrigerant Volume (VRV) systems
- Split air-cooled and direct expansion air conditioning units tailored to specific zone requirements.
- Roof top packaged pool plant system with heat recovery for effective climate control in aquatic space and the gym.
- Energy recovery ventilators for enhanced efficiency and reduced energy usage.
- Provision of energy recovery, exhaust, and outside air systems.
- Use of axial, centrifugal, and inline fans to achieve effective air distribution across all facility zones.
- Deploy a centralized BMS for the control, monitoring, and optimization of HVAC systems.
- Kitchen exhaust systems and integration with relevant equipment
- Integration with other building systems, such as lighting, fire detection, & energy metering.
- Provision of user-friendly interfaces for realtime adjustments and system monitoring.
- Implementation of vibration isolators and acoustic treatments to minimize equipment noise and maintain comfort in sensitive areas.

### **Customer Design & Delivery**

- **Optimised HVAC Layout:** Consolidated six rooftop units into three, freeing up space & improving plantroom efficiency.
- Enhanced Safety & Compliance: Redesigned plantroom layout to ensure compliant emergency access and egress, meeting fire safety standards.
- Improved Maintainability: Created clear, accessible pathways to support safer and more efficient maintenance and service operations.
- Smart Energy Monitoring: Developed a realtime power usage interface using existing meters, helping the client manage demand and reduce operational costs.







### **Solutions Outcome**

- **Tailored HVAC Solution:** Installed a dedicated rooftop package unit for the gym, with fabric ducting designed to blend seamlessly with the black ceiling aesthetic.
- Custom Design Integration: Colourmatched grilles and air diffusers to align with the Parramatta Eels' signature colour scheme, enhancing the space visually.
- Seamless Project Support: Delivered complete laundry exhaust solution, helping Kane maintain project timelines.
- Technology Integration: VAE's Technology team supported the smooth integration of all third-party systems onto the Building Management & Control System (BMCS).



## Cairns Convention and Exhibition Centre Expansion

#### **Client: Lendlease**

Contract Value \$7.3M

**Completion: November 2022** 

#### Overview

VAE Group were engaged by Lendlease to undertake the mechanical services on the Cairns Convention Centre refurbishment and expansion project. Separable portion one involved significant works to the existing centre where VAE carried out major upgrades to the building services including the replacement and upgrade of major mechanical plant. Separable portion two consists of a major expansion to the existing center scheduled for completion in Q4 2022. The new construction work includes the provision of 10,500m2 of new facilities at the Wharf Street end of the centre including a 450-seat flat floor plenary space, three meeting rooms, exhibition space, banquet facility and associated patron facilities and operational spaces that will enable concurrent conventions to occur with-in the centre.

#### **Controls integration**

As part of the centre upgrade our VAE technology team will deliver a Tridium based open control system which integrates the Building Management System (BMS) to an open protocol KNX Lighting, as well as a new Security and Access control system.

The Convention Centre user interface will be based on HTML5 Web graphics allowing the user to access the system via PC, Tablet or Smartphone.

The VAE Bureau will carry out ongoing analytics of site operation and energy usage once the installation project is complete.

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## Brisbane Lions - Brighton Homes Arena, Springfield Qld

#### Client: Hutchinson Builders

Contract Value \$2.02m

Completion: April 2022

Hutchinson Builders awarded VAE the design and construction of the mechanical services for the Brisbane Lions – Brighton Homes Arena project at Springfield, located approximately 26km from the Brisbane CBD.

The Brighton Homes Arena is the new home of the Lions' Australian Football League, Women's (AFLW) team and includes the development of a high-performance training and support centre for both the men's and women's teams.

The Arena has the capacity for up to 10,000 spectators, with grandstand seating for 600 fans. The combination of seated and standing spectators in the hill areas and tiers around the oval have been designed to bring the supporters as close to the football as possible.

The public are able to enjoy the Lions experience all year round, with access to a range of recreational facilities which form part of the open community hub.



VAE provided a new VRF Air Conditioning system to three separate buildings, including:-.

- The main 'Club House' building, which includes offices, open planned office spaces, meeting rooms, change rooms, gym, pool, and amenities
- The 'Community Building' includes the merchandise shop, bar, meeting room, two kitchens, and a commercial office space with a separate VRF system
- The 'grandstand' including change rooms, referee rooms, coaches' rooms and game day facilities



## **Project Experience**



## Te Pae Christchurch Convention Centre

## **Client: CPB Contractors**

Value: NZ\$19M

Completion: 2021

### Overview

After four years of construction, Christchurch's \$450 million (NZD) Convention Centre, Te Pae has opened its doors. Te Pae overlooks the Otakaro Avon River promenade, right in the heart of Christchurch's Central Business District (CBD). A world–class venue with 28,000m2 of highly flexible, adaptable space. The 1400-seat auditorium has a 9-metre by 18m screen and can be divided into two 700 seat venues. CPB Contractors engaged VAE Group to undertake the mechanical services on the centre.



### **Key Deliverables**

VAE have delivered an innovative, energy efficient, cost-effective, heating and cooling plant design solution, meeting the client's project goals. The installed solution was creating through a detailed energy model that used data compiled to evaluate life cycle costs and sustainability impacts, e.g., energy consumption, carbon emissions and water use. Other important factors were also considered including project constraints, operability, maintenance, replacement, and safety.

The subsequent design translated into a saving of 350m2 of plant room space which the client (Otakaro) was able to utilise for other purposes. Importantly, the mechanical systems were designed to comply with the seismic design principles of NZS4219, together with international best practice for seismic restraint of non-structural components.

### **Building Information Modelling (BIM)**

The project used BIM modelling extensively with VAE documenting the project within the REVIT environment utilizing the cloud based collaborative software BIM360 design, thus allowing increased work efficiency within the centralised cloud workspace.

VAE undertook lead services coordination with holistic reviews of the federated models with the use of Navisworks, providing team members with clash reports complete with supportive outcomes.





## North Queensland Cowboys Community, Training and High-Performance Centre

#### **Client: Hutchinson Builders**

Contract Value \$2.5m

Completion: 2021

Hutchinson Builders awarded VAE the Mechanical Services and Building Management System (BMS) for the Cowboys Community, Training and High-Performance Centre in Townsville.

The three-storey facility, located next door to Queensland Country Bank Stadium, includes multi-

sport high-performance training facilities, office space for Cowboys staff and allied health professionals, James Cook University (JCU) Sport and Exercise Science unit, plus a full-length training field.

VAE were engaged to install the HVAC plant and equipment for the building including.

- Air Cooled Chillers serving 38 Chilled Water Fan Coil Units in various locations
- Chilled Water Air Handling Unit (AHU) and heating water serving the Indoor Pool
- Supply and installation of Exhaust systems, including Kitchen, Indoor Pool, Altitude Training Room and Sleep
- Room Seismic restraints for mechanical equipment
- Tridium based open Building Management System (BMS) delivered by our VAE Technology team







## APEC Haus Convention Centre, Port Moresby PNG

### Client: CPB Contractors

Contract Value \$5.05M

**Completion: July 2018** 

APEC Haus, the premier convention centre created to host some of the world's top diplomats during the 2018 APEC Summit, is an iconic building in Papua New Guinea. Built by CPB Contractors PNG and funded by Oil Search, the most significant challenge for this project was a tight program to ensure completion for the summit.

We committed to training local labour, so this important building was built by



the people of PNG. After the summit concluded the building became a museum and tourist attraction, celebrating the Country's people and Culture.

VAE was awarded the contract based on our substantial value added engineering, our approach of

**Built in Certaint**y, and meeting project budgetary expectations. Our proven track record in delivering on large complex projects in PNG was also key.

VAE's commitment to safety was a crucial requirement for our client. During construction VAE won a safety award for our performance on site.



#### Key Achievements:

- Project completed three months ahead of program
- <sup>•</sup> 20 National PNG workers Upskilling and training of local PNG Nationals



## Star Mountain Plaza and Convention Centre, Stage 1

## **Client: Stratum Unlimited Ltd**

Contract Value A\$24.5m

Completion: 2018

Star Mountain Plaza and Convention Centre is a Hilton Hotel property created to host some of the world's top diplomats during the 2018 APEC Summit. Built by Stratum Unlimited, the most significant challenge for this project was a tight program to ensure completion for the summit.

VAE committed to training local

labour, so these important buildings were built by the people of PNG. After the summit concluded the Hilton hotel



continues as a premier 5 star hotel in Port Moresby and the Convention centre hosts regular functions.

VAE was awarded the contract based on our substantial value added engineering, our approach of built in certainty, and meeting project budgetary expectations. Our proven track record in delivering on large complex projects in PNG was also key.

VAE's commitment to safety was a crucial requirement for our client.

### **Key Achievements:**

- Upskilling and training of local PNG Nationals
- Project completed with no safety incidents
- Successfully hosted multiple APEC 2018 functions

