



Total M&E Engineering Solutions







LEADING IN M&E ENGINEERING SOLUTIONS

SINCE 1981

Mega skyscrapers. Underground malls.

From award-winning architectural masterpieces to landmark commercial, industrial and residential projects, Powen has a hand in realising some of Singapore's most iconic and notable developments.

Powen is about total M&E engineering solutions and technical competence. Our winning edge lies with our people. Decades of experience and expertise have been built from a team of trusted and committed workforce. This is our distinguished differentiation.

Powen is a L6 contractor registered with Building and Construction Authority (BCA), and this rating allows us to tender for projects of unlimited value for the below services.

- Air-Conditioning, Refrigeration and Ventilation Works (ME01)
- Electrical Engineering (ME05)
- Integrated Building Services (ME15)

To date, we have successfully executed more than 400 projects in Singapore and in the region.

OUR VISION

A leading provider of integrated mechanical and electrical engineering solutions in the region.

OUR MISSION

Deliver competitive and quality services to our clients, optimise value to our stakeholders and provide a rewarding work environment for our people.

CORE VALUES

Professionalism

We seek professionalism, show pride and dedication in our work.

Optimisation

We aim to optimise the use of our resources to deliver superior value in our services.

Wealth

We strive for profitable and sustainable growth for all stakeholders.

Excellence

We are committed to excellence to achieve ethical standards and quality of service for our customers.

Nurturing

We believe in nurturing a positive work environment and developing a highly motivated and diverse workforce.

WHY POWEN

We nurture our people and invest in work processes technology to enable innovativeness and value in our solutions. These are the reasons for our leading edge in the market.

1 Our Clients Trust Us

Our clients have entrusted us with large-scale, complex projects in all sectors. We have delivered on time and on target, time and again.

Experience & Expertise

With more than 30 years of experience and over 280 employees, we have built strong teams with sound technical expertise and a wealth of project management experience.

Total M&E Engineering Solutions

We have an excellent track record in total engineering solutions. We are committed to practising innovative and value engineering. This translates to cost savings and resource efficiency for our clients.

Sound Financial Management

Our culture of prudent financial management ensures that our projects fully comply with regulatory requirements, guidelines and policies. Powen's strong balance sheet provides assurance and confidence in the successful delivery of large scale projects.



Established Partnerships

Over the years, Powen has built robust partnerships with our suppliers and contractors. With our exemplary credit rating and established network, we can deliver excellent workmanship even with tight schedules.



EXPERTISE

Taking On Scale . Time . Complexity

Total M&E engineering solutions are our forte. Every development contends with scale, time management and complexity of requirements. We endeavour to deliver excellence through our strong processes and our team of dedicated staff.

Integrated M&E Engineering Services

Powen is your one-stop M&E engineering solution provider. Our full suite of integrated M&E engineering services leads to greater project efficiency, significant resource optimisation and cost savings.

- ACMV (Air-Conditioning and Mechanical Ventilation)
- Electrical Systems (High Tension & Low Tension)
- ELV Systems
- Fire Protection Systems
- IT Infrastructure and Communications Systems
- Intelligent Building Control and Management Systems
- Plumbing and Sanitary Services
- Medical Gas
- Integrated Building Services

Design and Build Solutions

Powen's design-and-build expertise adopts a whole system approach that helps clients realise the maximum potential of site design and building infrastructure while meeting the project's other requirements. We offer value to our clients by utilising cost and value engineering throughout the planning, design and development process. Economic analysis is applied to evaluate design alternatives that offer the most efficient solution.

Green Engineering

Powen provides chiller design and configuration services for new-build or existing building, including energy and power management system as well as lighting control to optimise building operations in accordance with Green Mark requirements. We deploy the most advanced technology and M&E engineering techniques to manage and execute projects.



Chiller Plant Upgrading

We conduct feasibility studies including energy analysis and system options for optimal system performance to improve energy efficiency.

With all the tactical challenges such as constraints with the design of the building and maintaining live status as the upgrading works take place, and knowing the intricacies of these challenging projects, Powen is able to carry out the works confidently without disruption to the occupants of the facility or any unplanned downtime.

A&A & Fit-out

Powen's teams have worked on a vast range of A&A and fitout projects over the years. We understand the complexities and challenges faced when the building status remains live as the construction takes place. We cover projects of all sizes ranging from tenancy fit-out to additions and alterations works for existing buildings.

Construction Productivity

Powen advocates productivity and progressiveness and constantly looks out for the latest technology and trends in engineering. We are one of the first M&E engineering companies to adopt the intelligent Building Information Modeling (BIM) system. We are also a pioneer in providing M&E engineering services that complement the latest construction methods, for instance, PPVC methods for Crowne Plaza Hotel Extension at Changi Airport.

Maintenance & Facility Management Services

As a multi-discipline engineering company, our capabilities include providing comprehensive M&E operations and maintenance services in all segments. From adhoc to scheduled preventive maintenance services, repair works, annual shutdown or full facilities management services, Powen has the resources, competencies and experience to help clients achieve operational efficiency as well as cost effectiveness in energy and sustainability initiatives.





OFFICE | RETAIL

Whether it is a Grade A office building or a high-end retail mall, we have the track record to prove our mettle.



Marina Bay Link Mall, Marina Bay Financial Centre Tower 2, 3

Grade A commercial development | Electrical Highlights:

- Over 2.6 million square feet of development constructed within a tight construction timeline
- Exceptional high-quality installation work required by the owner and high-end financial institutions, including meeting EMC requirement
- Commendation from the client for excellent services rendered
- Green Mark Gold/Gold Plus Award





The Metropolis



Grade A business centre | ACMV, Electrical, ELV, Fire Protection, Plumbing $\boldsymbol{\vartheta}$ Sanitary

Highlights:

- Full-range of M&E and plumbing & sanitary services undertaken by Powen
- Over 1.2 million square feet of high-end office space
- Green Mark Platinum Award including green features like recycling of effluent water, photovoltaic and lighting sensor systems

OUE Downtown (Podium)

Commercial office building | Electrical, ELV Highlights:

- Complex reconfiguration to convert office space to retail mall
- Stringent noise management requirements and minimum disruption to existing office tenants

Paragon

Retail mall and medical centre | Chiller System Decanting Highlights:

- Complete reconfiguration and replacement of chiller system exceeding 5000RT
- Zero disruption to retail business and medical centre operation
- Complex operations involving expert engineering solutions

Marina Square Shopping Mall

Lifestyle mall | ACMV, Electrical, ELV, Fire Protection Highlights:

- Interfacing work with "live" building during project period
- Technically challenging building design and services required



Selected portfolio Scotts Square | Retail & Residential Twenty Anson | Office Plaza 8, CitiCampus at Changi Business Park | Office & Retail Solaris Singapore | Office & Retail Zhong Shan Park | Office, Retail & Hotel Novena Square & Velocity | Office & Retail City Square Mall & City Green | Retail Wilkie Edge | Retail, Office, SOHO & Residential

RESIDENTIAL

Dream homes need quality M&E services. We have played a substantial role in realising dream homes since our establishment.

The Interlace

Condominium | Electrical, ELV Highlights:

- Unconventional building architecture poses diverse challenges from lightning protection to ELV system installation work
- Development with over 1000 units, 350 different types of apartment configurations

 a challenge to our project management skills and drawing preparation work
- Green Mark Gold Plus Award

The Minton

Condominium | ACMV, Electrical, ELV, Fire Protection Highlights:

- A condominium development with over 1100 dwelling units, with world class amenities for fun, wellness and tranquility living
- Extensive design to achieve optimal value engineering

Selected portfolio

Scotts Square | Retail & Residential Ardmore Park II | Condominium Nassim Park Residences | Condominium Twin Peaks | Condominium The Pinnacle Collection | Condominium Urban Resort & Urban Suites | Condominium Centennia Suites | Condominium Archipelago | Condominium euHabitat | Condominium







HOSPITALITY | HEALTHCARE

Powen has expanded its boundary to include hospitality and healthcare segments. Working alongside renowned architects, and proud to be part of an award-winning team.

PARKROYAL on Pickering

Luxury hotel | ACMV, Electrical, ELV, Fire Protection, Plumbing $\boldsymbol{\vartheta}$ Sanitary

Highlights:

- Integrated M&E and plumbing & sanitary services undertaken by Powen
- Customised work methods to adapt to building construction using light-weight and eco-friendly Cobiax Slab System
- Green Mark Platinum Building
- · Commendation from the client for excellent services rendered

Crowne Plaza Hotel Extension

Luxury hotel | ACMV, Electrical, ELV, Fire Protection Highlights:

- Singapore's first fully fitted-out 243-bed hotel project using Prefabricated Prefinished Volumetric Construction (PPVC) method
- High degree of accuracy, high quality of combined services drawing and tight coordination are required to ensure seamless final assembly at site
- Extensive diversions of existing M&E services, without affecting existing hotel operations, at a very congested worksite

Changi General Hospital - The Integrated Building

Hospital | Electrical, ELV

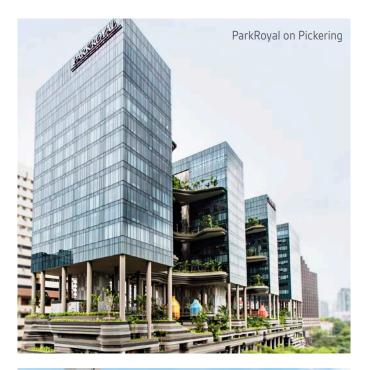
Highlights:

- A fully fitted out 280-bed community hospital completed in 15 months, including specialised systems
- Stringent requirements from hospital authorities and change of design during construction phase
- BIM Gold Plus Award was conferred to Powen
- Green Mark Platinum Building

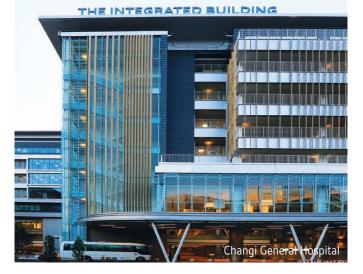
Selected portfolio

Pan Pacific Singapore | Hotel Ascott @ Cairnhill | Hotel Carlton Hotel | Hotel The Pines Hotel | Hotel Ramada Singapore | Hotel Days Hotel | Hotel OUE Downtown Tower 1 | Service Apartment

Singapore National Eye Centre | Healthcare Medical Centre @ Taman Warna | Healthcare Medical Centre @ Kampung Admiralty | Healthcare Medical Centre @ Jurong West Community Centre | Healthcare







INFRASTRUCTURE | PUBLIC PROJECTS

Beyond commerce and industry sectors, Powen has accomplished numerous projects for infrastructure, institutions and public facilities.

MRT Depot & Train Stations

Infrastructure | Electrical Highlights:

- Stringent testing regime for all equipment and materials supplied
- Detailed and high-quality documentation system requirement
- Intensive collaboration with Land Transport Authority and coordination with other trade contractors
- Awarded Green Mark Gold

China Cultural Centre

Cultural institution | ACMV, Electrical, ELV Highlights:

- Architectural design featuring unconventional floor levels and heights requires innovative engineering solutions, especially the iconic lantern lighting
- Awarded Green Mark Platinum

Military Camps & Naval Base Facilities

Government institution | M&E Highlights:

- Strict compliance with security clearance and procedures
- Stringent security guidelines on safeguarding project documentation and drawings
- · Employment of specialist equipment





Selected portfolio

Singapore Air Traffic Control Centre | Infrastructure Sengkang LRT & Punggol LRT | Infrastructure Upgrading of Newton & Braddell MRT Stations | Infrastructure My Waterway @ Punggol | Infrastructure Changi Water Reclamation Plant | Infrastructure

NTU School of Arts & Design Media | Institution SCDF Basic Rescue Training Centre | Institution Compassvale & Serangoon Secondary Schools | Institution Anchor Green & North Vista Primary Schools | Institution



INDUSTRIAL | LABORATORY

Our expertise extends to industrial applications and laboratories development.

Nucleos@One North

Laboratory | ACMV, Electrical, ELV, Fire Protection Highlights:

- High-end biomedical facility at Biopolis Hub, to house advanced research laboratories
- Design and build M&E services with dedicated lab-friendly features and modular column-free unit that enable flexible and efficient use of lab space.
- Awarded Green Mark Gold

PIXEL Red (Print Media facility)

Print media hub | ACMV, Electrical, ELV, Fire Protection Highlights:

- Design and build M&E services with complex production machine requirements.
- Awarded Green Mark Gold

FoodHub@Senoko

Food Production | ACMV, Electrical, ELV, Fire Protection Highlights:

- Integrated M&E services including Engineering Smoke Control System
- First integrated, multi-tenanted food production facility to support productivity drive in food sector
- 85,600 sqm production facility with shared cold-room warehouse



Selected portfolio

West Park Biz Central | Industrial DrilQuip Head Quarters | Industrial FNA Group Building | Industrial Ark @ Gambas | Industrial Woodland BizHub | Industrial Singapore Inflight Catering Centre 1 | Industrial

OVERSEAS PROJECTS

With our proven reputation in the local M&E industry over the years, we have also established regional credibility for overseas projects in South East Asia. Our overseas portfolio is a testament of our capabilities.

Sedona Hotel Extension | Yangon, Myanmar

5-star hotel | Electrical, ELV, Building Management System Highlights:

- 400-bed expansion of an iconic hotel in Yangon
- Working with multiple local government agencies to ensure full compliance
- Import management as most materials are supplied from overseas

Singapore Embassy | Phnom Penh, Cambodia

Embassy | ACMV, Electrical, ELV, Fire Protection, Plumbing $\boldsymbol{\varTheta}$ Sanitary

Highlights:

- Integrated M&E and plumbing & sanitary services undertaken by Powen
- · Compliance to standards and code of practices in Cambodia
- Challenging lead-time for material delivery and other logistical issues

Selected portfolio

Me Linh Point (Office & Retail), Ho Chi Minh City Vietnam Mecure Service Apartment, Surabaya Indonesia Mecure Grand Hotel, Surabaya Indonesia Bintan Lagoon Golf & Beach Resort, Bintan Indonesia Summit Parkview Hotel, Yangon Myanmar Batam Industrial Park, Batam Indonesia



COMMITMENT TO QUALITY

Customer satisfaction is Powen's highest priority. Our Quality Policy "Towards Excellence in Quality Engineering Service" speaks of our conviction to continuously improve our performance to deliver superior service for our customers.

COMMITMENT TO SAFETY

We advocate workplace safety and health in Powen. We are committed to make every reasonable effort to provide a safe work environment for all. Our health and safety program has been developed to ensure compliance with regulatory occupational health and safety requirements. We require our people at all levels to pay careful attention to all safety practices and procedures, and to abide by them diligently.



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