



ELECTRICAL
PROJECTS
AUSTRALIA

CAPABILITY STATEMENT 2023



John Hunter Hospital Paediatric Intensive Care Unit. Photo: Rodrigo Vargas

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ELECTRICAL PROJECTS AUSTRALIA

Located in the harbour city of Newcastle, Electrical Projects Australia (EPA) is New South Wales' most prominent electrical design company. EPA commenced operation in 1986, and consists of a team of experienced electrical engineers, design draftspersons, draftspersons, site supervisors, tracers and secretarial staff.

Specialising in the provision of electrical engineering, consulting and project administration services to the commercial building, public building, public infrastructure, alternate power generation, mining, cotton, grain handling and general industrial markets EPA offer a highly competitive and cost effective service.

We have developed a level of expertise in our chosen fields which allows us to provide a professional service to our valued customers. We have developed a sound basis of technical skills reinforced with practical experience and can provide a range of services that ensure that our clients requirements are fully satisfied.

At Electrical Projects Australia we are committed to providing quality electrical engineering projects that exceed best practice. We deliver designs that are truly optimized to enhance and improve the overall efficiency of our client's developments.

By virtue of the commitment by all involved, Electrical Projects Australia consistently achieves results that are well beyond our size. We are well known and have built a solid reputation for rapid response time, quality and value for money service operating.



UON Q Building, Photo: Murray McKean



OUR TEAM

Led by Director, Paul Malanchuk, who has over 20 years of experience within the Electrical Engineering industry our experienced and dedicated employees are the driving force of our company.

Electrical Projects Australia consists of a team of highly skilled and knowledgeable Electrical Engineers who specialise in a comprehensive range of professional consulting services.

Our Engineers are also trade qualified electricians and have practical experience in installation, maintenance, testing and commissioning of electrical and electronic equipment and systems for industrial and commercial projects.

Our in-house drafting department, specialise in the use of AutoCAD and have over 50 years' combined experience in the industry. Our drafting department are leaders in providing our clients with accurate and quality detailed drawings that meet their specific requirements.

At EPA, our Engineers, Drafts people and Administration staff work closely with one another through the life-cycle of each project so that we are able to deliver our clients with a professional, and efficient service.

EPA offer a Graduate and Under-Graduate program to assist young engineers in kick starting their careers. We offer a hands-on learning experience where our Senior staff members mentor in a variety of different areas. We currently have two Under-Graduate Engineers working within our team.

OUR VISION

EPA is based from Newcastle & the clients to whom EPA provides services experience quality electrical engineering projects that exceed best practice & designs that are truly optimised to enhance & improve the overall efficiency of the development.

Due to our well-conceived brand marketing & can do attitude we are the first choice in the minds of customers for all their Electrical Engineering projects.

EPA stands out from its competitors because of our great response time, quality & value for money service offering. In addition, EPA is well resourced & more than capable to meet their customer needs & has many supporters of the business which has led to EPA obtaining only quality and profitable work.

EPA has 4 separate divisions for each of its services & is very well managed, all staff have specific roles and responsibilities to work towards, and they are empowered to make decisions, accountable & are results driven.

OUR MISSION

At Electrical Projects Australia we are committed to providing quality Electrical Engineering projects that exceed best practice. We deliver designs that are truly optimized to enhance & improve the overall efficiency of our clients development.

By virtue of the commitment by all involved Electrical Projects Australia consistently achieves results that are well beyond our size. We are well known & have built a solid reputation for rapid response time, quality & value for money service offering.

We will provide the type of employment atmosphere which encourages staff interaction with management as Electrical Projects Australia is a caring, family oriented company where management are generous & approachable.

We will continually review our services to meet our clients expectations with intent to develop.

OUR SERVICES

BUILDING SERVICES

EPA are experts in the provision of Electrical Building Services Design.

We specialise in Building Services for both new buildings and refurbishments of existing buildings and have worked on a number of major projects throughout Sydney, Central Coast and Newcastle and throughout Australia.

EPA can provide Electrical Building Services to a variety of sectors including:

- Accommodation & Housing
- Cultural, Clubs, Shopping & Commercial Developments
- Sporting Facilities
- External, Landscape and Architectural Lighting
- School Education, Technical and Further Education and Universities
- Hospitals, Medical and Aged Care





LIGHTING DESIGN

Electrical Projects Australia understand that there is nothing as important as the look and feel of a room. We provide lighting design services to architects, interior designers, project managers, landscape architects and property owners.

Our lighting designers, focus on enhancing a space through the implementation of a professional lighting design scheme. We appreciate that lighting needs to be functional, flexible and complement your home or workplace.

At EPA, we work together with our clients to enhance spaces with light, ensuring the most sustainable and cost-effective solutions.

INDUSTRIAL & MINING

EPA has serviced the Industrial & Mining sector in Electrical Engineering for more than 25 years. From pre-feasibility and design phase right through to commissioning, EPA have the relevant skills and experience to meet our client's needs.

Our dedicated team specialise in Power and Control System design and development, engineering reports, and commissioning services.

We also have experience in programming and implementation of PLC and SCADA systems including; Allen-Bradley/Rockwell, Citect, Klockner Moeller, Modicon, and Schneider Automation.

Industrial & Mining clients of EPA include; Sibelco Australia, Aviagen, Werris Creek Coal Handling Plant, Moora Crushing Plant, and Boral National Resource Management.

Industrial & Mining services we provide include:

- Project Management
- Fault Finding and Analysis
- System Studies
- Manual Preparation
- Load Flow Studies
- Power and Control System Design and Development
- PLC and SCADA Programming
- Commissioning Documentation and Supervision
- Switchboard Design
- Arc Flash Studies
- Hazardous Area Electrical Design and Hazardous Area Classification
- Transient Motor Start
- Harmonic Analysis
- Protection Grading Studies
- Transient Stability Studies



HAZARDOUS AREA CLASSIFICATION

EPA can provide Hazardous Area Electrical Design for industrial work environments where there are likely to be highly volatile and dangerous work areas.

AS/NZS 60079 series requires the owner of a hazardous area electrical installation to keep and maintain a dossier including information on the installation's operation, testing, certification, inspection, maintenance, and repair.

Our specialist engineers are trained in Hazardous Area Design, Installation and Inspection and can provide the following services:

- Hazardous area classification
- Initial, sample and periodic equipment inspections
- Hazardous area design
- Conformity assessment of overseas certified equipment
- Design and installation compliance reviews
- Hazardous area verification dossier compilation

ARC FLASH ANALYSIS (NSW ONLY)

Electrical Projects Australia has staff who are highly trained in Arc Flash and can provide your company with an Arc Flash Analysis to ensure the highest level of safety is achieved for your personnel.

An arc flash is the plasma cloud that develops during and following an electrical fault, whereby the insulating properties of air are overcome through rapid ionisation. "Most arc power is delivered to, and stored in, the plasma cloud as high-temperature plasma enthalpy".

It is characterised by temperatures in excess of 15,000 °C, a cocktail of superheated toxic gases and airborne molten metal from melted conductor and steel, released by the components within an electrical assembly under fault. As a result of the rapid energy release, a pressure wave also develops of such considerable magnitude such that if contained, may lead to switchboard structural failure and propel missiles such as panel doors. In the absence of appropriate pressure relief, arc flash incidents have been known to collapse entire substation buildings.



NBN PIT & PIPE DESIGN

Electrical Projects Australia can provide NBN Pit & Pipe and NBN Pathway design services to help builders, developers, and contractors ensure they are correctly prepared for the installation of network equipment.

Our drafting department are familiar with CAD Standards, NBN Design Tools, and Symbols Specifications relevant to NBN Guidelines.

It's important that you plan the installation of the nbn™ broadband access network early as you need to apply at least 3 months before civil works commence. Electrical projects Australia can help with the application for your development as well as the design. We are a preferred supplier of NBN and have been working alongside them for some time with the NBN rollout in Australia.

BIM REVIT

At EPA we see the future of design in our industry being based in Building Information Modelling (BIM). This is why we are continuing to invest into training and development into Revit BIM. As a result our staff are highly experienced and well resourced in Revit BIM and ready to be part of your next BIM project.

CLIENTS OF EPA



OUR PORTFOLIO



NEW ENGLAND CENTRE OF EXCELLENCE IN HEALTH EDUCATION, TAMWORTH

Client: EJE Architecture

EPA were engaged as the Electrical Design Consultant for a new campus for the University of Newcastle in Tamworth, NSW. Located in close proximity to the Tamworth Base Hospital, the campus provides an education facility and several new student accommodation buildings. The education facility consists of tutorial spaces, a student learning common, lecture theatre, and simulation laboratories for both allied health, medical, and nursing students.

EPA were responsible for the Design, Documentation, and Contract Administration of all Electrical Services associated with this project.

The building has been designed to 'breathe' by including natural ventilation strategies, and lessens artificial light through the widespread use of skylights and clerestory windows.



LAKE CATHIE PUBLIC SCHOOL

Client: AW Edwards

EPA were the Electrical Designers for design development, detailed documentation and construction phase services in assistance to AW Edwards the project builder.

The \$7.8 million school is a new 14 Core Primary School on a greenfields site located within an anticipated high growth coastal area between Lake Cathie and Bonny Hills on the NSW mid north coast.



JOHN HUNTER CHILDREN'S HOSPITAL - PAEDIATRIC INTENSIVE CARE UNIT

Client: dwp

Located on the grounds of the John Hunter Hospital, the Paediatric Intensive Care Unit was a new build construction linked to the current general ICU with direct internal access to the rest of the hospital.

The innovative, functional and family friendly facility was designed in accordance with District and State strategic planning requirements.

EPA were responsible for the Design, Documentation and Contract Administration of all Electrical Services associated with this project.



THE GATEWAY

Client: Core Project Group

The Gateway development on the corner of Stewart Avenue and Parry Street. EPA were engaged as the electrical designers for the project itself and the integrated fit-out.

Designed by CKDS Architecture, the site geometry to the corner was carefully considered and stylised to form two opposing curves. Each of these curves relate to a different circulation pattern; the curve to the street is a reaction to the movement of traffic, the curve to the inner section of the site relates to pedestrian circulation through the building.



CRYSTALBROOK KINGSLEY

Client: EJE Architecture

Crystalbrook Kingsley is culturally connected, sustainably-led, simply sophisticated and steeped in history. The first luxury hotel to grace Newcastle, Crystalbrook Kingsley sparks vibrant energy and nostalgia in one moment.

Winner of the Paul Davis Award for the Australasia-Pacific Hotel of the Year and Hotel of the Year (Conversion) at the Australasia-Pacific Hotel Design Awards.

EPA were the electrical engineering Design and project administration of the installed through to completion.



NEWCASTLE AGRI TERMINAL - GRAIN TERMINAL

Client: Newcastle Agri Terminal

Design, Documentation and Contract Administration of all electrical works for New NAT Grain Terminal Newcastle Port Corporation. The \$28m Newcastle Agri Terminal (NAT), the city's second grain export facility and the first major grain port built in NSW for 25 years.



Q BUILDING - UNIVERSITY OF NEWCASTLE

Client: EJE Architecture

The University of Newcastle's Q Building has been awarded a 6 Star Green Star 'Design and As Built' rating, making it the first building in regional NSW to be given the certification.

Given the highest possible rating awarded by Green Star, the \$25 million Q Building is the first stage of the University's new Honeysuckle City Campus. The building will house the university's School of Humanities, Creative Industries and Social Sciences (HCISS) and Integrated Innovation Network (I2N)





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