



EDCelectrical
design&construction



**Capability
Statement**



“
**At EDC, our goal
is straightforward:
to combine all
our commitment,
passion, expertise
and experience to
achieve results for
our clients.”**

MANAGING DIRECTOR, EDC

About EDC

Electrical Design and Construction (EDC) is an experienced industrial electrical engineering company dedicated to providing a professional service aimed at achieving results for their clients. Established in 1998, and recognised today as a leader in the industry, we, at EDC, are proud of the many long-term partnerships we have built over the years. This, we believe, is a result of pinpointing our clients' needs, developing a focused strategy, implementing an effective plan, and then following through to project completion, on time and within budget.

Based in Wodonga (near the Victorian-NSW border), EDC services clients throughout Australia and Internationally.

Some of the areas we specialise in include industrial electrical automation projects, high voltage installations, control systems safety design and assessments, detailed electrical design, hazardous area zoning and installation, turnkey automation engineering solutions, and industrial data.

EDC offers technical expertise and experience in a wide range of industries including water and wastewater, recycling, mining, manufacturing, food and beverage, dairy, packaging, plastics, processing, high voltage, power generation, terminal stations, grain handling and feed mills.





Why Work With Us



Reputation

Over the previous 20+ years, EDC has earned a reputation for being trustworthy and transparent. The quality of the work we deliver is of paramount importance and we always adhere to the principle that our reputation is only as good as our last job. We are also committed to financial transparency. This is shown by the many cost reimbursement projects completed year to year with full visibility of project costs. We believe our clients stick with us because we have earned their trust.



Safety

Clients we work with often comment on our team's commitment to onsite safety, noting that the EDC team attended all toolbox, planning and management meetings and were always seen to be making safety a priority on the worksite. One client recently went further, stating that our team "often leads the way in safety onsite", adding that "no incidents were recorded". Safety protocols and training have always been (and will continue to be) a priority at EDC.



Experience

At EDC, we are proud of the fact that many of our employees have been with the company from the start, and others having more than 10 years service. When it comes to honing skills, it is difficult to beat on-the-job experience. Over the years, our team has discovered what works and what doesn't – finding better, more efficient ways to solve problems. Having a track record in the industry also means that we've been able to forge many connections (for example, with manufacturers and distributors), leading to better cost options that we can pass on to our clients.



Our Team

Our staff are our greatest asset. We appreciate their skills, their experience and their loyalty, which is why we continue to invest in them with ongoing training and development. The team is made up of many specialists – project managers, electrical engineers, electrical design and drafting personnel, industrial installation electricians, and many others – all highly motivated to do their best for our customers.

This also applies to our management team who, with many years of combined experience in the industry, are constantly striving to provide our clients with a quality service and genuine value for money. By listening to our clients' needs offering support and knowledge when required, our team is proud of the excellent customer relationships they have fostered over the years.



Jason Flower
Managing Director



Mark Edwards
Director / Engineering Manager



Mark Pfeiffer
Director / Project Manager / Design Draftsman



Rob Gollan
Director / Data Manager



Safety Management a Priority

EDC is both Master Electrician and CM3 compliant when it comes to our safety management system (Safety Connect). The Safety Connect Australia system complies with the highest levels of electrical safety, ensuring a safe work environment for our staff and clients, as well as assisting our staff with maintaining the competency and skills stipulated by the latest regulatory requirements. EDC's Safety Systems and Policies are continually developing with the dynamic industry and audited by a third party for compliance and assurance that EDC are providing an educated and safe workforce.



Working at Heights



First Aid



CPR



CM3



Master Electricians

Specialist Licenses

EC Licenses

- Electrical Contractors License for VIC, TAS, WA, SA & NSW
- Project Management

Medium Voltage

- Chartered HV Engineering
- HV Terminations
- HV Switching

Low Voltage

- Chartered Electrical Engineering
- Instrumentation, Hazardous Area, Blue Book Licenses
- Machine Safety TUV Certified PLC & Thermal Imaging

Data

- Open Cabling
- Fibre Splicing & OTDR Testing

Project Management

All EDC projects are managed according to the size of the project and the risks identified. From self management by our designers, monitoring their own schedule, budget, risks and scope, to a dedicated project management team, with a PM, Project controller and project officers and administrators. We will ensure that all projects are monitored and controlled appropriately so that we can deliver the project effectively to completion.

Our projects are run according to the PMBOK processes, best practices and guidelines, this providing consistent documentation and reporting throughout all our projects.

Our project managers continually work on eliminating or mitigating risks to ensure our projects are focused on delivery with no compromise on safety and reducing our clients exposure to risks.



Design & Engineering Services

For all engineering design we have registered professional engineers that certify and sign off designs as needed.

- Cable sizing for HV & LV Cables
- Arc Flash Analysis
- Fault Calculations
- Lighting Design
- Earthing modelling & Earth grid design/ Specification
- Lighting protection
- Fault current Distribution
- Insulation Coordination
- Protection design & Settings
- Single line development
- Electrical schematics development
- Switch board design
- Electrical CAD Development
- CT/VT design calculations
- Machine safety design & Hazop's
- Instrumentation & Instrument selection
- Data and IT design
- Automation Functional Descriptions
- DCS, RTU and SCADA Development



Specialist Electrical Manufacturing & Installation Capabilities



Fast Moving Consumer Goods

EDC has been the major electrical contractor (design and installation) for the construction of numerous large plants around Australia. Recent projects include:

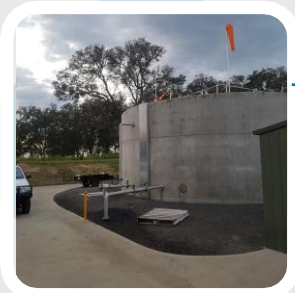
- Mars Petcare pet food production plants in NSW & VIC
- Ridley Agriproducts Feed Mills in TAS, NSW, VIC & WA
- Baiada's Feed Mill (NSW)
- V2 Foods in VIC & QLD
- NESTLE plants in VIC & NSW



33kV Medium Voltage Install, Switching & Maintenance

EDC continues to do a lot of work on Medium Voltage (MV) installations. Examples of the HV work we do include:

- Generating supporting documentation for new HV connections
- HV distribution design
- Generation of HV Safety Plans
- MV Switching Instructions
- MV Installations
- VLF Testing
- Sites we support maintaining and switching of MV:
 - + Wodonga Abattoirs
 - + Carter Holt Harvey Timber Mills
 - + V2 Foods
 - + Mars Petcare
 - + NESTLE



Municipal Water & Wastewater

One of EDC's areas of specialisation is the water and wastewater industry. Our "Water Team" (consisting of projects managers, design and software engineers, instrumentation technicians, and many other specialists) have had many years' experience on projects that incorporate detailed electrical design, instrumentation selection, PLC code, SCADA graphics and commissioning. Our areas of work (in cities and remote locations) include:

- Raw water to potable water plants
- Pipeline pumping stations
- Wastewater treatment plants
- Factory trade waste treatment facilities
- Recycled water plants
- Reverse osmosis plants for boiler water feeds.



Board Building

EDC have a fully equipped workshop to build a variety of switchboards for our clients. We can utilise any brand the customer requires, fabricating in-house or fitting out onsite. EDC has extensive experience building all types of boards including for motor control centres, PLC control cubicles, operator control panels, LV distribution boards and assembling HV distribution boards – all in compliance with AS/NZ Standards. All boards are tested before leaving our workshop and provided with extensive documentation validating their design and purpose.



Grain Processing Handling

EDC have been involved in modernising control systems and capacity upgrades on various grain handling facilities in Queensland, NSW, Victoria and South Australia. Our other work in this field includes:

- Pre-harvest preventative maintenance programs
- Total refurbishment of numerous Paddy transfer shuttles at SunRice bulk storage facilities
- Plant upgrades at SunRice's Leeton and Deniliquin rice mills
- Milling upgrades at Nestle/Uncle Toby's
- Grain transfer upgrades for Cereal Partners Worldwide.



Communications Fibre Optic & Data

EDC have been involved in multiple turn key installations on various grain processing & handling facilities in QLD, NSW, VIC & SA complementary works in modernising control systems and capacity upgrades. Recent Projects include:

- Baiada Feed Mill (Griffith, NSW)
- Ridley Aqua Feed Mill (Westbury, TAS)
- Ridley Feed Mill (Wellsford, VIC)
- Southern Stock Feeds (Bridgewater, VIC)
- Blue Ribbon Feed Mill (Rockhampton, QLD)
- Cargill grain storage & Handling (VIC, NSW, SA, QLD)
- Nestle Milling Upgrades
- Cereal Partners Worldwide Grain Transfer upgrades
- Plant Upgrades at SunRice (Leeton and Deniliquin VIC & NSW)



Power Generation & Distribution

EDC are regularly contracted to assist Power generation companies such as AGL, AGL Hydro and Meridian to fulfil the following tasks;

- Hydro Generator repairs and upgrades
- Transformer testing and oil sampling
- Protection designs, upgrades and validation
- Station repairs and upgrades
- Switchboard Upgrades
- Balance of plant upgrades
- UPS design and maintenance
- Return To Service maintenance

EDC are also regularly contracted to support distribution clients such as Powercor, AusNet, Essential Energy, Zinfra and Transfield. Typical works include;

- Installation of HV/MV infrastructure
- Wiring and terminating HV Switchgear
- Testing HV Cables and HV Joints
- First response services at Wodonga, Dederang & Mt Beauty terminal stations



Machine Safety

EDC's machine safety services ensure customers comply with current and emerging standards by facilitating and providing risk assessments, electrical safety solutions, mechanical guarding solutions and validation. Our solutions aim to eliminate Incidents and unplanned downtime, enhance work-place safety, and improve employee morale. These services include:

- Project management & material procurement
- Installation/assembly services
- Start-up assistance & factory acceptance
- Field support services
- Preventative maintenance programs
- Production floor safety system support
- Safety system validation & design reviews
- Safety circuit analysis.

Featured Projects



Mars Petcare Pet Food Capacity Upgrades

- Electrical, instrumentation and pneumatic installation
- Network installation (data, Profibus, Safetybus & wi-fi)
- Installation on tray support infrastructure
- Installation & commissioning of control panels, switchboards and PLC cubicles.

Nestle Continuous Improvement Project

- Electrical, instrumentation, data and pneumatic installation
- Network installation (data, Profibus, Safetybus & wi-fi)
- Installation & commissioning of control panels, switchboards and PLC cubicles
- Installation on tray support infrastructure.

“
**EDC services
clients throughout
Australia, as well
as in countries
such as NZ &
South East Asia”**

Parkes Water/Sewage Treatment Plant

- Design, drawings, installation & commissioning of the electrical & instrumentation package
- PLC and SCADA design, installation and commissioning
- Chemical dosing & UV treatment systems
- Installation of cable support infrastructure
- Electrical and instrumentation design & construct

AGL – Eildon/West Kiewa Hydro Power Schemes

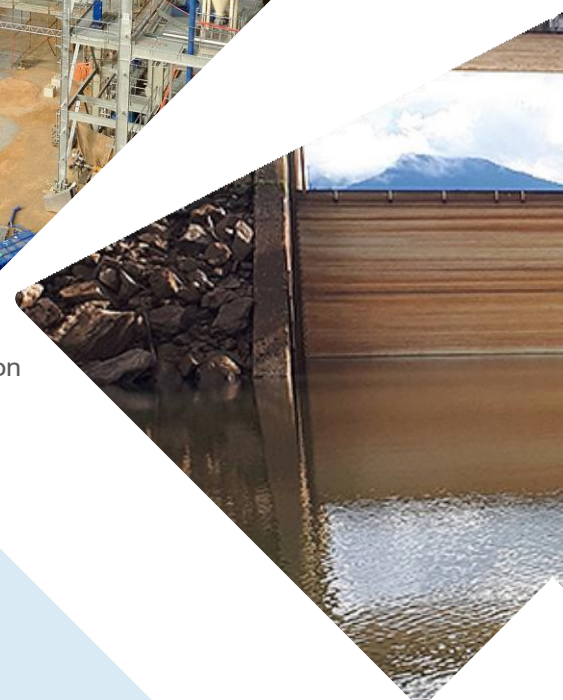
- Supply, installation, termination and VLF testing of 5200m of 22kV cabling from four 20MW hydro generators to the switchgear
- Installation of cable support infrastructure
- Removal of 50 tonne cabling from a lift shaft that extended 120m below ground
- Full thermography survey and report at completion of project.
- 14-day planned shut completed 2 days ahead of schedule.

Riverina Oils & Bio Energy (ROBE)

- Installation and commissioning of the electrical and instrumentation portion of project
- Installation of cable support infrastructure
- Installation of MCCs and distribution switchboards
- Project management of the electrical installation with over 40 electricians onsite.
- Over 80% of the installation was zoned “Hazardous”.

Lake Buffalo Spillway Upgrade

- Supply and installation of new MCCs for spillway, emergency and irrigation gate operations
- Removal of redundant cubicles, electrical and instrumentation cabling
- Installation and commissioning of new electrical, instrumentation and communication systems
- Spillway light and power.
- Project ran for nearly 2 years. While working on this project EDC had to ensure that the remaining infrastructure was fully operational.





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