

**Controlled  
Engineering  
Solutions**

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**Services & Capabilities**



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The background features a complex geometric design. The upper portion consists of a light blue grid of lines forming a series of overlapping, slightly curved rectangular shapes. This transitions into a dark, almost black area on the right side, where a white, wavy, grid-like pattern resembling a Möbius strip or a distorted grid is visible. At the bottom, several thin, curved lines in white and blue sweep across the dark background.

# Mission Statement

Powering our customers' success through  
experience, innovation, and reliability.



# About Us

CES is a specialist Electrical Engineering Company with innovative industry expertise and management services. The company was established to assist different sectors to complete high level electrical engineering projects for heavy industries. We provide our services across the industrial sector, specialising in the mining, energy, water, waste, and construction industries.

The team can be utilised to provide specialist Electrical Engineering and optimisation services, providing the complete engineering solution, tailored to your specific site needs.

Our areas of expertise include: Power Systems Engineering, Automation and Control, SCADA systems, Arc Flash Analysis, Electrical Drafting, and Electrical Project Management. Additionally, we offer General Electrical Engineering, Electrical Services and Maintenance and Safety and Compliance Assistance.

Our multi skilled electrical engineering team have, through the years, provided numerous varied engineering services across many industries. Whether new, existing upgrades or enhancements, CES have the expertise of managing projects at any stage of the process from concept, scoping, detailed design, installation and commissioning through to maintenance and ongoing monitoring.

Safety in design influences everything we do. The CES team ensures that our projects are risk assessed at the design stage, delivering safe and compliant electrical designs to the industry. At each stage through the process, CES will monitor non-compliances, providing our customers with recommended actions and solutions.

The CES headquarters is based in Newcastle NSW Australia. We provide our services and expertise to clients across Australia and New Zealand.

# Our Core Values





# Our Core Values

**Excellence:** Short, sweet, simple. We aim for excellence in everything we do.

**Inclusivity:** We have a commitment to the rights of every person to achieve their best and strive to help them with their goals.

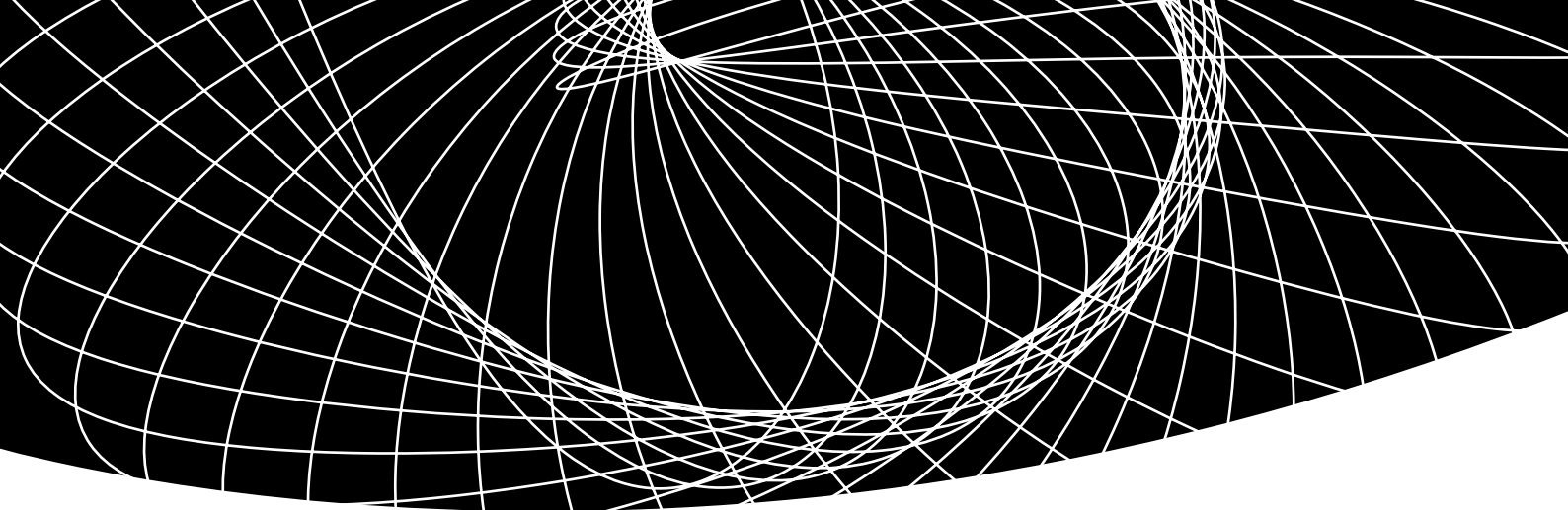
**Integrity:** We operate honestly, transparently, and ethically, always.

**Innovation:** We are committed to getting better at everything we do by driving innovation.

**Partnership:** We work with our partners to scale the size and complexity of our customers' projects.

**Safety:** Written into our DNA, safety in design influences everything we do.

**Collaboration:** From many, one. Ideas do not grow in isolation, and neither do our people. A collaborative approach benefits everyone and drives us forward.



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# General Electrical Engineering

Our multi skilled electrical engineering team have, through the years, provided numerous varied engineering services across many industries. Whether new, existing upgrades or enhancements, CES have the expertise of managing projects at any stage of the process from concept, scoping, detailed design, installation and commissioning through to maintenance and ongoing monitoring.

## Our services include:

- Design & Commissioning of LV/HV works
- Switchboard Design (both new and replacement)
- Project Scoping & Technical Specifications
- Communications Network Design
- Electrical Engineering Review
- Power Factor Correction
- Design Improvements
- Power & Lighting
- Cable Sizing





# Power Systems Engineering

Our power systems design team have extensive experience in all facets of power, reticulation and electrical networks, providing total support for design, optimisation and re-augmentation of new and existing systems. With the support of our project managers, and site electrical services team, CES can provide, not only the design function, but total project support, installations and ongoing maintenance where required.

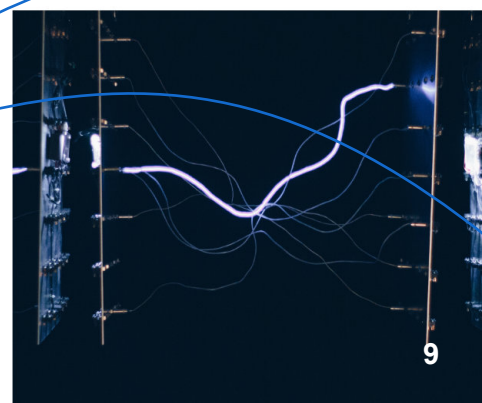
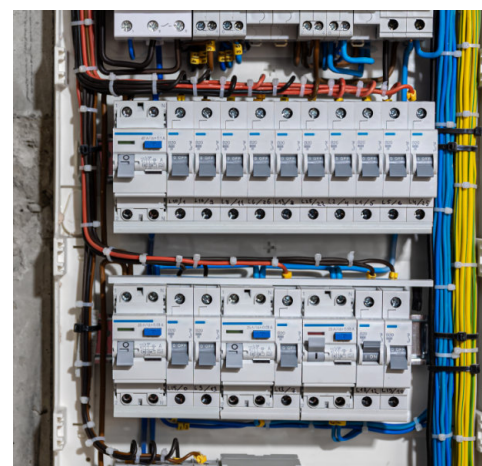
## Our services include:

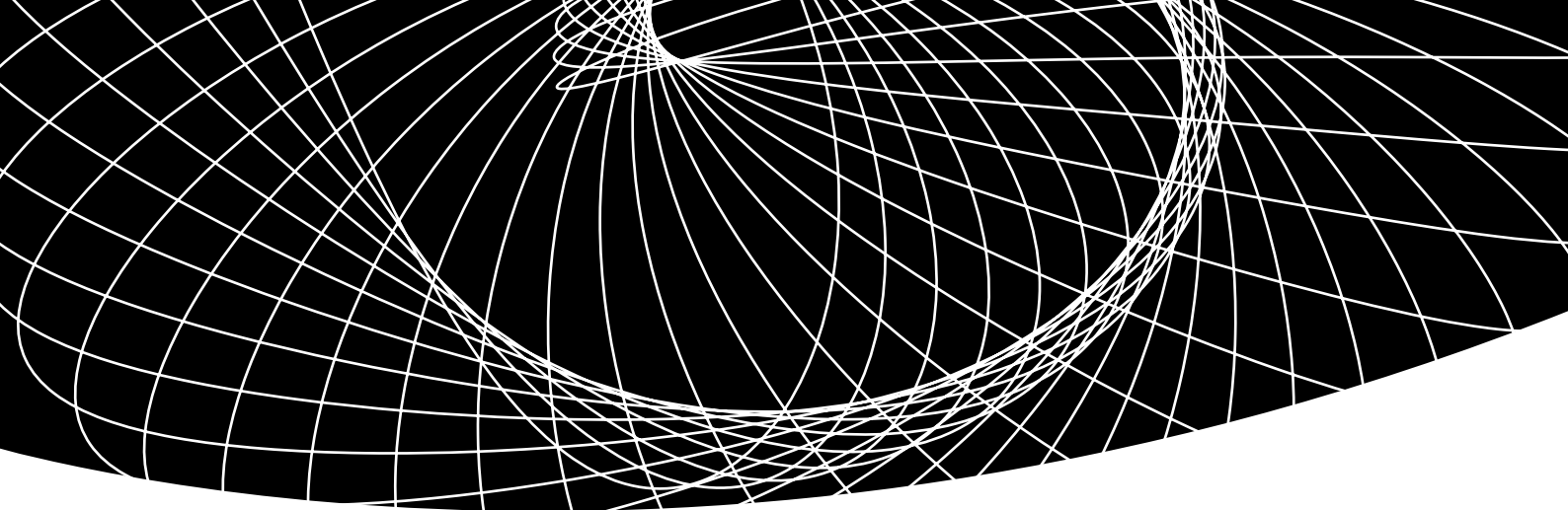
(New, Refurbishment, Replacement, Optimisation, Re-augmentation)

- High Voltage Systems (Including ASP3 Design Services)
- Switchboards & Distribution Systems
- Low Voltage Systems
- Generator Systems
- Earthing Systems

As a part of our power systems design process, CES utilises PTW software to model networks, providing the foundation for safety, equipment sizing and selection, through:

- Protection Grading & Co-ordination,
- Fault Level Analysis,
- Load Flow Analysis,
- ARC Flash Analysis.





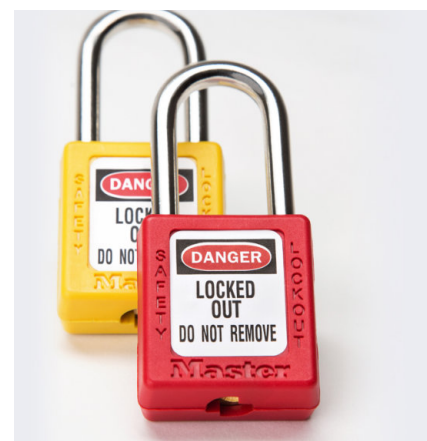
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# Safety & Compliance

The CES mission is to ensure our projects are risk assessed at the design stage, delivering safe and compliant electrical designs to the industry. At each stage through process, CES will monitor non-compliances, providing our customers, with recommended actions and solutions.

## Services:

- AS/NZS 3000, AS 3007, AS/NZS 3009, AS/NZS 3010, AS4871, AS4024 & other electrical auditing
- Development of electrical maintenance systems
- Functional Safety Assessments
- Hazardous Area Assessments
- Risk Assessments
- WHS Site Auditing



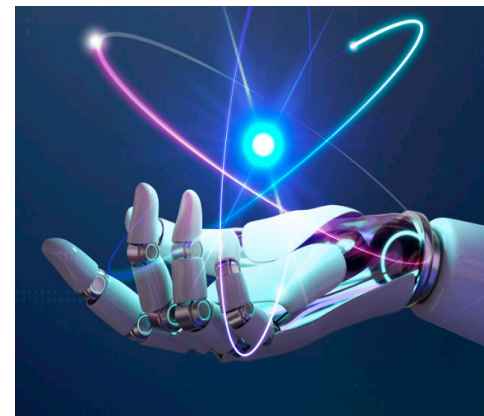
# Automation & Control

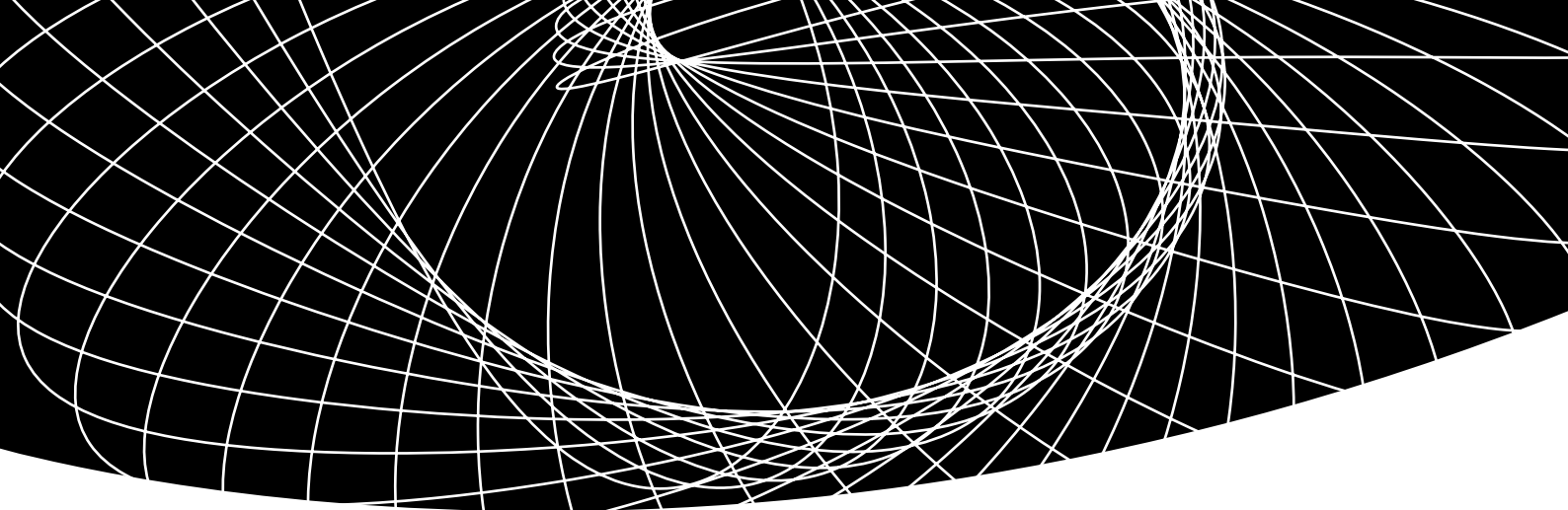
Whether it is a new project, upgrade or end of life replacement, CES have extensive experience in all areas of plant automation and control. Our Systems Integrators thrive on delivering creative, customised automated solutions that enhance safety and increase efficiencies.

CES work with our clients, establishing the right solution to suit, not only their budget, and automation outcome, also through looking at traditional solutions as well as new technologies and applications that could future proof the operation.

## Our services include:

- PLC programming & optimisation
- Cloud based data acquisition
- Remote Monitoring
- Plant automation
- IIoT applications
- SCADA systems
- VSD controls
- Networking
- Telemetry





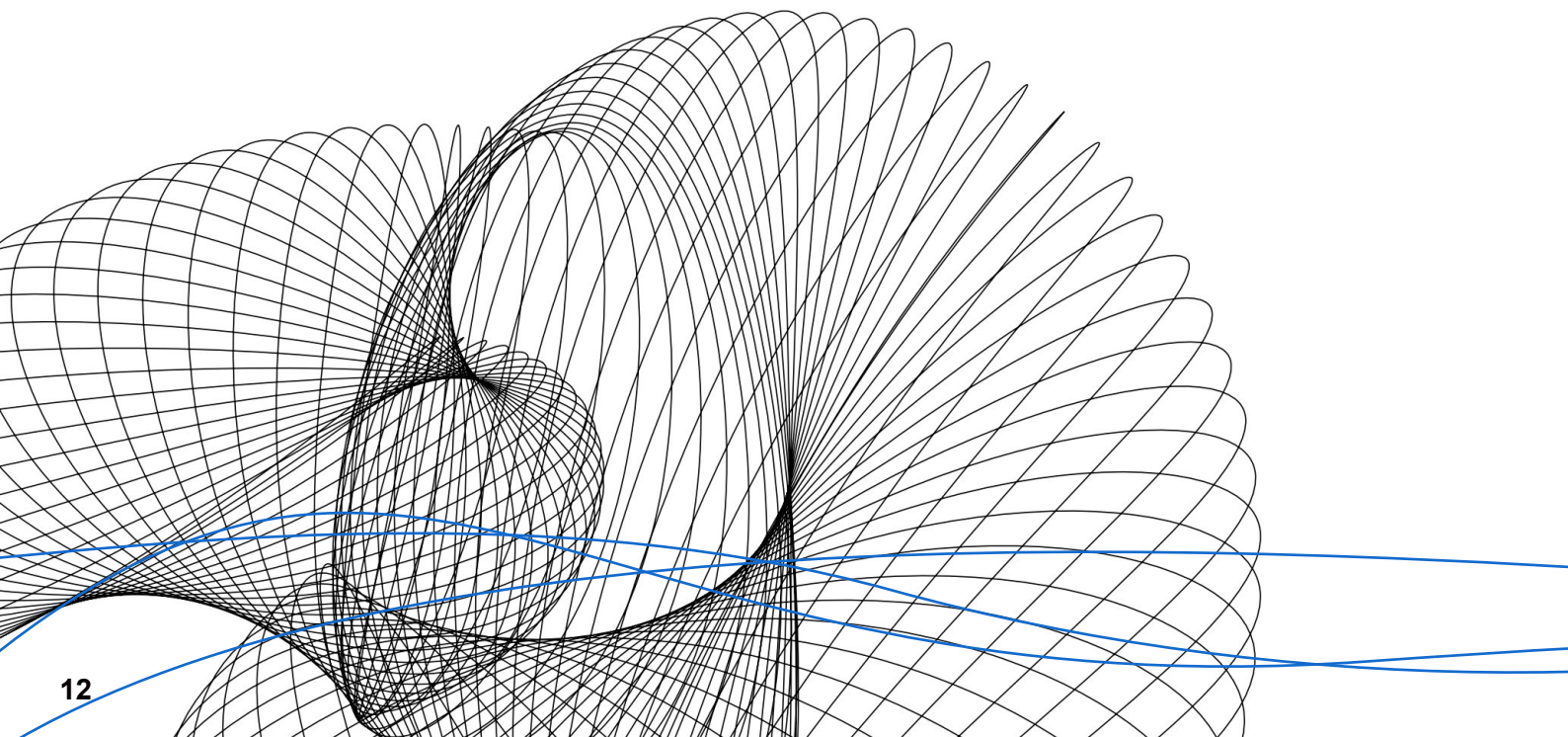
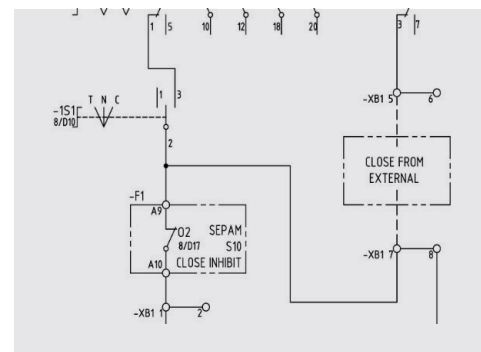
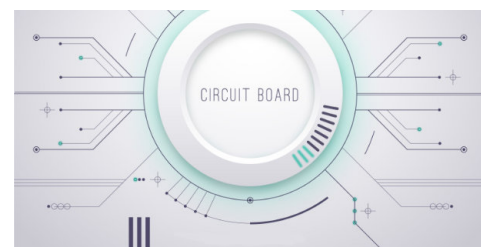
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# Electrical Drafting

With drafting systems and standards that have been developed over many years of industry experience, our qualified design drafting team is able to provide technical design drafting solutions that comply with our standard or adapting them to provide compliant drawings that meet and match your current styles and requirements.

## Our services include:

- As Built Mark-Ups
- Design Drafting
- Tracing



# Electrical Project Management

At CES we believe that a well-managed project is a win for everyone. It will provide our clients with significant savings in cost and time, ensuring that each part of the project aligns with the design and remains compliant from initial inception through to final commissioning.

Our project managers, either independently or as part of the project delivery team will endeavor to get the best results for our customers and clients.

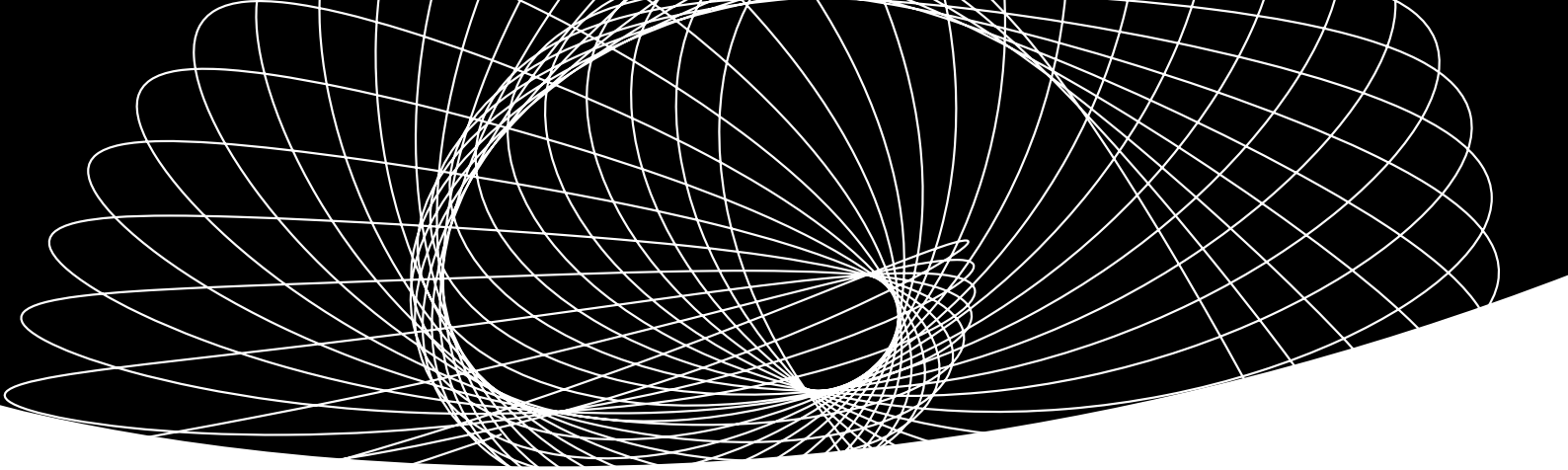
When providing our design and engineering service as part of a wider team of consultants our project managers can work easily within the project delivery framework.

Our commitment to document control and as-constructed design ensures a complete packaged product at the end of installation.

## Key Capabilities:

- Commissioning documentation & site management
- Specification verification & management
- Tender compilation & review processes
- Compile scope of works
- Budgeting & Cost Tracking
- Quantitative review process
- Procurement management
- Feasibility Studies
- Scheduling
- Reporting





# IR Thermography

Infrared thermography is a non-destructive test method that may be used to detect unbalanced loads, deteriorated insulation, or other potential problems in energized electrical components.

Once we have the data from an inspection, we can identify electrical equipment that is about to fail or that will require maintenance and understand the potential onset of a fire or arc flash incidents.

CES provides Thermal Imaging Services by a qualified thermographer as a proactive approach to electrical maintenance and to assist with developing a predictive maintenance action plan.

This service is usually carried out annually and ideally it can be done in conjunction with an Arc Flash inspection or on a regular maintenance visit. It will give a clearer indication of any potential issues and to assist with developing a plan to rectify the issues before they can cause a major breakdown.

The benefits of predictive maintenance, include:

- Visibility on a regular basis of your assets which increases the asset life cycle
- As a minimum, this inspection should be completed annually. To trend the data and to assist with predicting failures a regular quarterly thermographic program should be followed.
- Increases reliability of the electrical components
- Offers the option to plan necessary downtime (shutdowns) to conduct replacements and recommended solutions



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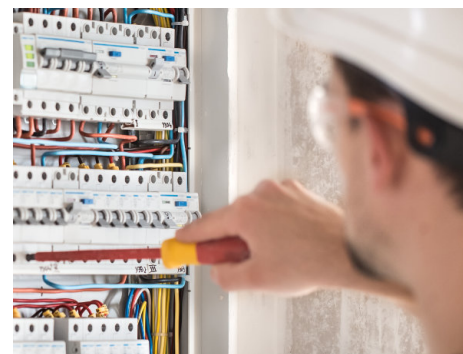
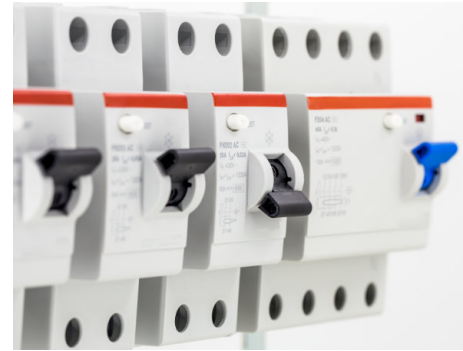
# Electrical Services & Maintenance

CES has a highly experienced electrical team, operating during normal business hours.

Outside of these hours we provide a 24-hour emergency breakdown service.

## Typical Services:


- Power Factor Correction installation, service and repairs
- Generator Installation, service and repairs
- Managed Electrical Maintenance Services
- Electrical Maintenance & Fault Finding
- Switchboard Design & installations
- Electrical construction/Installations
- Statutory Compliance Checks
- New Installations & Additions
- Testing & Tagging
- Thermal Imaging
- Commissioning



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# Contact

## Contact Information

-  02 4989 6484
-  **ABN** 88 634 797 247 licence number 364974C
-  [www.controlledengineering.com.au](http://www.controlledengineering.com.au)
-  [projects@controlledengineering.com.au](mailto:projects@controlledengineering.com.au)
-  Controlled Engineering Solutions Pty Ltd
-  Unit 1/1 Saltspray Close Redhead NSW 2290
-  PO Box 7119 Redhead NSW 2290



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