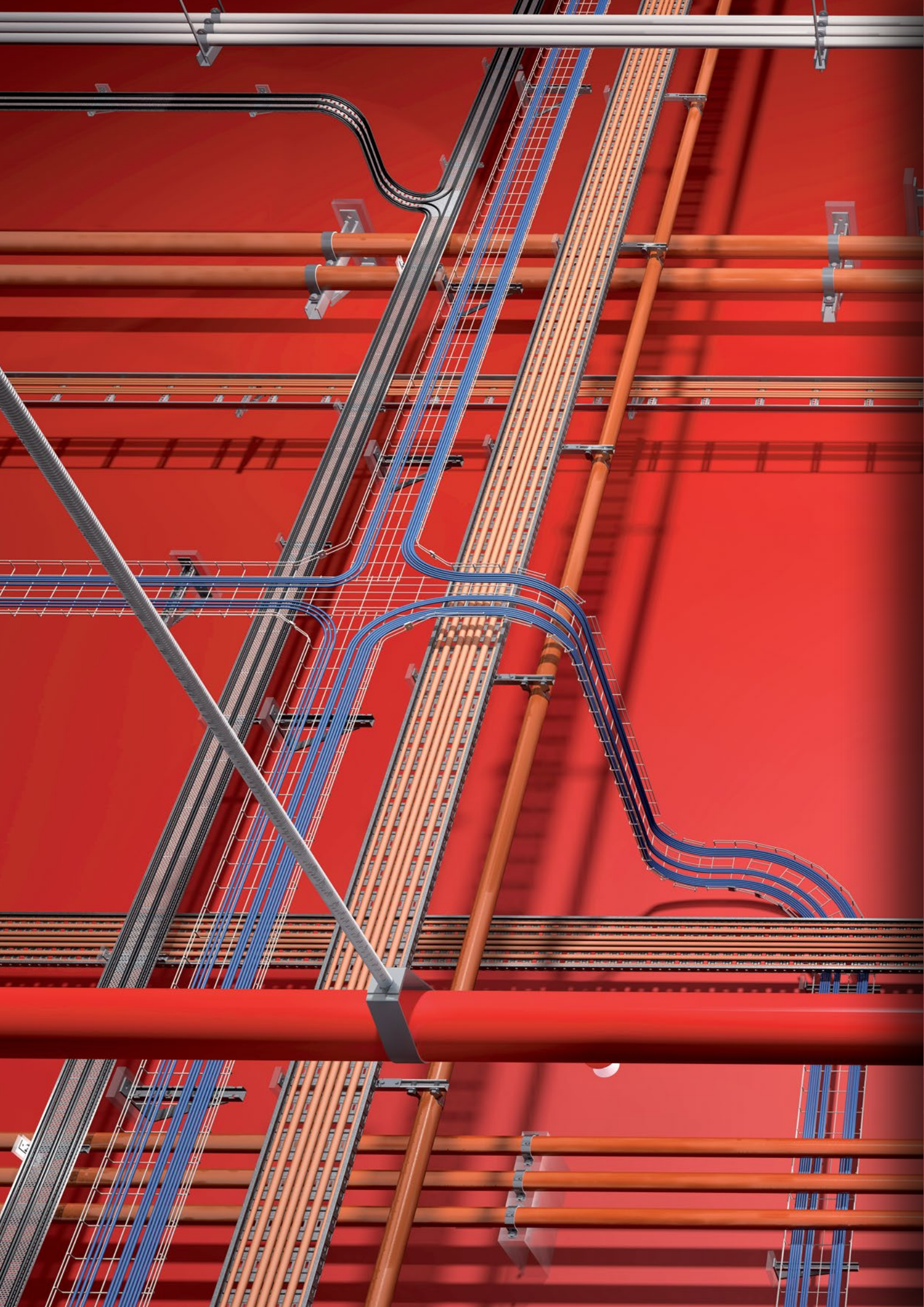


WE'VE DELIVERED

EzyStrut
Cable & Pipe Supports



www.ezystrut.com.au



WELCOME TO EZYSTRUT.

**TESTED TO THE
EXTREME.**





Wheatstone Civil Operations, Western Australia

Supporting a New Source of Vital Energy

\$30BN	>84,500M	2,100	600,000	2,300TN	5
PROJECT	OF CABLE LADDER SUPPLIED	CUSTOMISED FITTINGS	WELD POINTS	OF PRODUCT DELIVERED	LOCAL & INTERNATIONAL DELIVERY POINTS

- **Stainless Steel, greater than NEMA 20C Ladder**
- **New Ground in Cable Supports Broken**
- **Custom Designs & Engineering Support**
- **Flexible Labour Management to meet deadlines**

Wheatstone is a Chevron operated natural gas field about 200km north of Onslow on the Western Australian coast. At the project's heart is an 8.9 million metric tonne per year LNG facility supplied by multiple marine wells. The Wheatstone project is designed to supply gas to Australia, and export over 5 million tonnes per year to Asia. This makes Wheatstone a fuel source for major cities in both the Northern and Southern Hemispheres.

EzyStrut's Role

Since March 2012, at the early design stages of the project, EzyStrut worked with Bechtel (EPCM Contractor) to design and test a cable support system that set a new standard in load over extended spans and corrosion resistance, that to date is unsurpassed.

Over 84km of Stainless Steel Grade 316 cable ladder was supplied, all subject to independent testing to meet the project's performance requirements.

Project Management

A dedicated Project Manager (PM) was assigned to the project and was solely in charge of coordinating the seamless supply chain starting from raw material procurement all the way up to delivery of the final product.

The PM also ensured that any likely capacity constraints were addressed early, and created increased production capacity strategies to help keep the project on schedule.

Quality compliance and checks was one of the key hold points in the project and external inspectors employed by the end client frequently visited EzyStrut's manufacturing facilities to approve products before despatch. Complete material traceability was also provided.

Logistics management was efficiently handled with multiple 40' containers despatching per week to three different countries along with local despatch to WA.

The PM pro-actively worked with the client to ensure that all sites received the materials in full as per individual schedules.





EzyStrut Cable Ladder on an Ichthys LNG Project module

Managing Cables across Complex Modules

\$38BN	>12TR	>500M	>27,000M	>20,000M	>5,500
PROJECT	CUBIC FEET OF GAS IN ICHTHYS FIELD	BARRELS OF CONDENSATE	OF CABLE LADDER SUPPLIED	OF CUSTOM, HEAVY DUTY CABLE TRAY SUPPLIED	EARTH BONDING STRAPS

- **Direct Involvement over 4 years with EPCM JKC/Inpex**
- **Customised, Cyclonic Rated Hold Down Unit specially developed for the project**
- **Combination of shelf range and custom products to create an unrivaled support network**
- **EzyStrut is supporting a project that is providing fuel to major cities all over the world**

The Ichthys LNG Project is one of Australia’s most challenging, yet exciting LNG projects. Located about 220 kilometres off Western Australia and 820 kilometres southwest of Darwin, the Ichthys Field covers an area of around 800 square kilometres in water averaging depths of 250 metres. Fuel from Ichthys will supply major global centres in the Northern and Southern Hemispheres for decades to come, hence all suppliers were required to provide solutions that could service Inpex’s jewel project well into the future.

Multiple Project Locations Successfully Supplied

Because of its sheer size, the Ichthys project has rigs, onshore processing facilities, and assembly yards across Asia, Western Australia and the Northern Territory. This has meant that high volumes of product was required to be supplied in a timely manner, with access to fast turnaround specials at any location too.

The Client found their Solutions with EzyStrut

It was EzyStrut’s large shelf range of multiple products with so many variations in size, materials and load bearing capabilities that made us the obvious choice for the project: The senior project engineers for Ichthys saw that EzyStrut could truly cover every base for all electrical support needs of the project.

However, EzyStrut’s engineers were able to add further value by addressing specific safety needs of some of the project’s cyclone prone locations by developing a special cyclone rated hold down system for the cable supports that could be exposed to the strong weather.





Adelaide Oval, South Australia

Supporting the SA Host of International Sports and Music

\$610M	53,000	3,900M	5,100M	PRECISE	ICONIC
PROJECT	SPECTATOR CAPACITY	OF POWDER COATED, ARCHITECTURAL CABLE TRAY	OF STEEL CABLE LADDER	COLOUR MATCHING FOR POWDER COATED PRODUCTS	INTERNATIONALLY RECOGNISED CULTURAL HUB

- **Major Architectural Project**
- **Only EzyStrut could meet the safety and quality requirements**
- **Components from EzyStrut became key visual elements of the stadium’s design**
- **Flexible delivery arrangements for different stages of the project development**

The Adelaide Oval is one of the newest stadiums in Australia, and was conceived to be a major Australian sporting and entertainment hub by the Government of SA. This dream has been realised with major football, cricket and music events being staged there.

Flexible Delivery
The project was constructed in multiple stages, and because of site storage requirements for the contractors, needed to be supplied flexibly and on an ad-hoc basis. This was no problem for the EzyStrut logistics team who were able to supply products when needed with little notice.

Quality and Safety
The Adelaide Oval puts South Australia on show to the world. Attracting up to 53,000 visitors at anyone event, all building and electrical materials used needed to be of the highest possible standard for strength, safety and quality.

EzyStrut's products undergo regular checking during manufacture, and are tested to a 3:1 safety factor with results generally independently verified. This meant that the project engineers at the Adelaide Oval were safe in their decision to choose EzyStrut to support the electrical installation around many thousands of people.

Product quality and appearance was also important to the contractors for the Adelaide Oval: The Architect’s design uses a significant amount of white and coloured lighting effects, and it was decided that exposed electrical installations would also form a part of this: Hence exposed cable trays were not only made to specific visual standards physically, but also had their powder coating colour matched to be an effective component of the overall design.





Pacific Highway upgrade works, New South Wales

PROJECT:
PACIFIC HIGHWAY UPGRADE

EzyStrut

Securing Service Pipes at Multiple Interchanges

\$5.3BN	12,000	8	2,000	>500NB	SS 316
PROJECT	VEHICLES PER DAY	SPECIAL EZYSTRUT COMPONENTS DESIGNED	SPECIAL FABRICATIONS	PIPE SIZES REQUIRING SUPPORT	STAINLESS STEEL FABRICATION

- **EzyStrut's shelf stock of Large Nominal Bore Pipe Clamps benefited the contractor**
- **High Speed delivery of MTO Components**
- **Significant safety factors met**
- **Flexible, as required despatch from EzyStrut's NSW warehouse**

Connecting Sydney to Brisbane, the Pacific Highway is one of NSW's largest roads, one of Australia's busiest, and facilitates transport networks that are major contributors to Australia's economy.

In 2014-15 the NSW State Government committed to adding additional lanes and interchanges to accommodate the future growth of the highway.

Dedicated Problem Solvers

EzyStrut received an enquiry from the contractor constructing new interchanges on the Pacific Highway upgrade. They needed a solution to support all manner of pipework and needed to meet very high building safety standards.

EzyStrut's dedicated Building Services Solutions Manager was able to help: They were able to look specifically at the challenges faced by the contractor, where the pipes were, what loads and other factors such as vibration their support infrastructure could be subjected to in order to work out a solution to support them.

The Building Services Solutions department at EzyStrut is only comprised of construction experts who have years of actual hands on experience in commercial building projects, hence they know how to solve problems using EzyStrut components.

Managing the Team to Deliver

Our Building Services Manager was able to identify quickly what parts of the EzyStrut range would suit, and what would need to be fabricated specially to meet certain size, load bearing and safety factors.

With this information they were able to brief EzyStrut's engineers to design and test the appropriate components for the client, and then manage the manufacturing and later despatch from the NSW warehouse.

Together, this all gave the client a solution, with an easy, one point of contact who could answer all questions as and when required.





Gold Coast Desalination Plant, Queensland

PROJECT:
NATIONAL DESALINATION PLANTS



Helping to secure water for Australia's future

\$10.5BN	4	5 YEAR	20+	FIRST	GLOBAL
TOTAL PROJECT VALUES	STATE DESALINATION PLANTS	PROJECT COMMITMENT	YEAR PROJECT LIVES	MAJOR USE OF FRP CABLE SUPPORTS IN AUSTRALIA	PROJECT RECOGNITION & AWARDS

- **Simple and economical solutions devised with off-the-shelf products**
- **Material coatings devised to guarantee strength against corrosive elements in the desalination process**
- **EzyStrut engineers on-site for consultation before, during and after construction**
- **Continuous delivery targets met over 5 years**

- **Pt Stanvac, SA**
- **Wonthaggi, VIC**
- **Sydney, NSW**
- **Gold Coast, QLD**

Water is a precious resource, and a continuous, reliable supply is vital to any nation. State governments around Australia have commissioned new desalination plants and with them sought suppliers who could deliver reliable products within tight construction deadlines.

Between them, the four plants have a daily output capacity of over 1,500 megalitres, volume reflected in their size and component requirements.

New Solutions from Established Products

The nature of a reverse osmosis desalination plant means that strong criteria in cable support strength and resistance to a wide range of substances was required at each project.

Whereas designing a new system to cater for each individual specification and experimenting with ideas could have been costly to the clients, EzyStrut's engineers were able to create a support structure that economically met all the necessary stringent requirements for each project.

FRP (Fibre Reinforced Plastic) cable ladder was used to create a network around the requirements of the sites. They themselves were supported by stainless steel components.

EzyStrut's Engineers also developed a new chemical composition for central aluminum cable ladders used on the sites: Normally aluminium is highly resistant to most chemical substances, but some additional protection was needed to ensure its performance around certain chemicals used in the desalination process.

Economical without Compromise

All in all an economical, but certified reliable solution for cable supports around the new desalination plants was achieved through the clever use of off-the-shelf products. EzyStrut's national warehouse footprint was also beneficial in supplying products to each site as and when required: This aided the contractors in their on-site product storage requirements.





PROJECT:
BRISBANE AIRPORT LINK TUNNEL



A New Level of Performance for Cable Supports

\$6.5BN	6.7KM	UP TO 150,000	15KM	UP TO 750,000	FIRST
PROJECT	ROAD TUNNEL	VEHICLES USE THIS TUNNEL DAILY	OF CABLE LADDER SUPPLIED ON TIME	KG OF CABLES CAN BE SUPPORTED BY THE INSTALLATION	AS3013:2005 COMPLIANT CABLE SUPPORT PROJECT

- **Industry First in Australia and New Zealand**
- **Major Australian Road Tunnel**
- **Standard components provided for an economical product**
- **Ladder supplied with fast, labour saving installation design features to achieve timely project construction**

The M7 Brisbane Airport Link Tunnel is a major multi-lane, free-flow road tunnel linking Brisbane Airport to the CBD.

New Concept for a Specific Ask

EzyStrut responded to a specific ask from the market with regard to the Brisbane Airport Link Tunnel construction.

EzyStrut's engineering team designed a revolutionary new concept for fire-rated cable support systems to handle the cable management for the tunnel. The resulting cable ladder later became the first cable support system to comply with the AS3013:2005 standard, through passing an independent test where it was subjected to temperatures peaking at 1050°C over a 2 hour period.

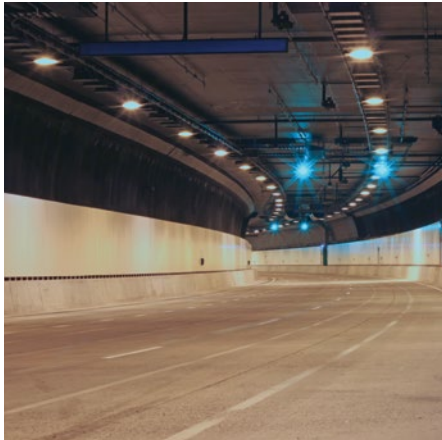
Other problems solved included EzyStrut arranging a special matte black powder coat finish to prevent unwanted light reflections that could effect drivers using the tunnel.

Foundations for the Future

Since the completion of the project, the need for AS3013:2005 compliance in electrical installations has steadily grown around Australia and beyond. To address this, EzyStrut has since developed over 60 new fire rated cable tray, mesh and ladder systems for installation anywhere from commercial constructions, petrochemical facilities and mine sites.

All designs are independently tested for AS3013:2005 conformance and load capability, and we still maintain their unique labour saving installation designs.

AS3013 : 2005
FIRE RATED
CABLE SUPPORT SYSTEMS



Brisbane Airport Link Tunnel, Queensland



MTO FABRICATION CAPABILITIES

Providing easy solutions to a range of projects

Queensland Curtis LNG

■ 600 SS 316 and HDG Custom Brackets

Queensland Curtis LNG is a QGC and BG Group operated natural gas project. It is one of Australia's largest capital infrastructure projects, involving US\$20.4 billion of investment from 2010-14.

QCLNG will be the world's first project to turn gas from coal seams into liquefied natural gas, or LNG.

Early Involvement

Through Thiess who are involved in the early works and compression facilities infrastructure of the upstream works, we have supplied special brackets and customised instrument stands to suit site requirements for 11 different locations on the project.

The Thiess procurement team requested us to work with their lean procurement strategy and manufacture all brackets to order within a predetermined lead time for despatch to the required site.

Optus LTE Mobile Network

■ 700 HDG Custom Mounts

Visionstream, a design constructions and maintenance services company is a trusted partner to Optus for civil and services work in the deployment of its LTE (Long Term Evolution) mobile network. The project involves civil and services upgrades to over 1,200 existing Optus mobile sites and for new sites across Australia. Works include radio design, site acquisition, site design, construction, installation, commissioning and optimisation of the Optus mobile network.

Diverse Products and Locations

With over 30 sites supplied in 12 months, this project has been one of the most diverse in the types of brackets and stands used. With every site having different specification and installation methods, our engineering and procurement team have worked extensively and closely together to cover both the design element of the product and ensure a lean supply strategy of the diverse range of raw material required to manufacture the end product.

A key play maker has been EzyStrut's project office that maintains constant communication with the client and expedites products through the supply chain until the product is delivered on site on time as required by the contractors.

Ergon Energy

■ >17,000 Custom MTO Steel Fabrications

Ergon Energy is a Queensland Government owned corporation which builds and maintains the electricity distribution network for regional Queensland. The main functions of the business is the restoration process for planned and unplanned outages including after disasters, cyclones and floods, establishing new connections to the network and the planning of future networks.

Safety Stock

We won a supply agreement with Ergon Energy to manufacture and supply a section of the brackets required for all their infrastructure installations. Our project team has come to an agreement to keep safety stock in the Queensland branch.

We also have a quarterly audit in place conducted by Ergon Energy on our supply performance and work with them to improve supply when any opportunity for improvement is identified.





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We deliver on our promise