



**magellan**  
power

# CAPABILITY STATEMENT

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**Reliability | Longevity | Service**  
[magellanpower.com.au](http://magellanpower.com.au)





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# OUR STORY

Magellan Power was founded in 1991 by Masoud Abshar in Perth, Western Australia.

As a hands-on practical power electronics design engineer and with knowledge of heavy industry and mining, Masoud saw the need for customised, highly reliable, long life, power electronic equipment to suit the harsh Australian operating conditions.

The first product was the SPC DC power systems created in 1991. Along the way, many more advanced power products such as MCRI, MCRII DC power systems as well as industrial inverters and UPS followed.

Around 2009 having developed both AC and DC systems, Magellan was one of the first companies globally to enter the energy storage market and since then Magellan has developed Australian made Home Energy Storage, Commercial/Industrial Scale Energy Storage, Utility Scale Energy Storage and Stand Alone Power Systems. Magellan has grown from a one-person, one-product business to the team it is today, collaborating with universities, research organisations in the field of advanced batteries and power electronics, employing R&D engineers, production engineers, technicians, electricians, production personnel and site service technicians.

1991



- Inception of POWERTRONICS

1995



- POWETRONICS renamed to Magellan Powertronics
- Development of MCRI
- O'Connor location
- 10+ employees

2007



- Magellan Powertronics renamed to Magellan Power
- Development of MCRII + Dual Conversion / BiDirectional UPS
- Bibra Lake location (Cocos Drive)
- 30 employees

2009



- Development of Grid Utility Support System (GUSS)
- Logo update
- 30+ employees

2013



- Development of HESS + Utility Scale Energy Storage
- Expanded Bibra Lake location (Bushland Ridge)
- 50+ employees

2020



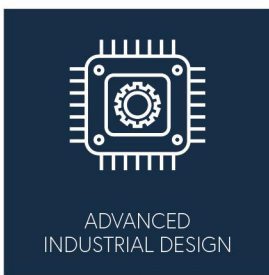
- New branding and website
- 60+ employees



# OUR DIFFERENCE

## AUSTRALIAN MADE TECHNOLOGY

*Since establishment in 1991 Magellan Power has designed and manufactured high-reliability battery based DC and AC back-up power systems for many major projects across Australia and globally.*



Magellan Power is a family-owned business founded by Masoud Abshar - a power electronics engineer - in 1991. The company progressed from a need for customised, locally made and supported products that suited Australian harsh environmental conditions (heat, humidity and dust). Magellan provides its customers with rugged, reliable power solutions especially built and tailored to specific project needs. Magellan Power's advantage is its cutting-edge technology and ever evolving research and development capabilities which ensure it is always at the cusp of industry changes. The company manufactures AC and DC power systems, grid supporting energy storage, Stand Alone power systems, and industrial Electric Vehicle battery chargers.

Magellan Power has a team of over 60 researchers, engineers, technicians and professional support staff. The company is accredited with the AS/NZS ISO 9001:2015 Quality System across the areas of research and development, manufacture, supply and service of renewable design, management, manufacture supply and service of power electronic equipment and supply of industrial batteries.





# OUR EXPERTISE

Magellan Power manufactures customised, high reliability AC and DC power systems, grid supporting energy storage, Stand Alone Power Systems, EV chargers and offers specialised service and commissioning.

Magellan Power brings together hardware, software, power electronics and deep knowledge of industrial batteries to ensure continuous clean power to critical industrial equipment. Our customers' vital equipment is powered continuously and reliably.

Our core value of "steadfast support of our customers" was formed by decades of service to our clients located in the remotest parts of Australia and our deep practical knowledge of harsh environmental conditions ensures that our Service Technicians are the industry's leading experts in the provision of support through preventative and on-site repair services.

## DESIGN

- In house R&D and product development
- State of the art robust Australian design solutions
- Expert technical team
- Built-in reliability and longevity
- Perfect for extreme conditions
- 25-year design life

## ENGINEERING

- Innovative solutions that satisfy the exact requirements, reduce costs, and increase reliability

## MAINTENANCE

- Maintenance contract
- 24-hour call out
- Onsite and workshop repairs
- Site commissioning
- Battery testing and replacement
- Audit services

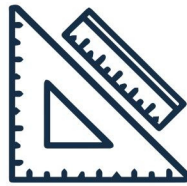


# OUR CORE VALUES

STEADFAST  
SUPPORT OF  
OUR CUSTOMERS



MAKING  
PRODUCTS  
THAT LAST  
FOR YEARS



CONTINUOUS  
IMPROVEMENT



UNIQUELY  
AUSTRALIAN



ETHICAL  
BUSINESS



REPUTATION



## UNIQUELY AUSTRALIAN

30 years of experience has given us a deep understanding of the industry, which is why we know our customers, where they are, the conditions they work under, and what they need. We design products and solutions that perfectly suit our customer's requirements, work reliably, and last for years while offering steadfast support with parts that are always available and expert service personnel who are ready to support our clients 24 hours / 7 days a week.

# OUR INDUSTRIES

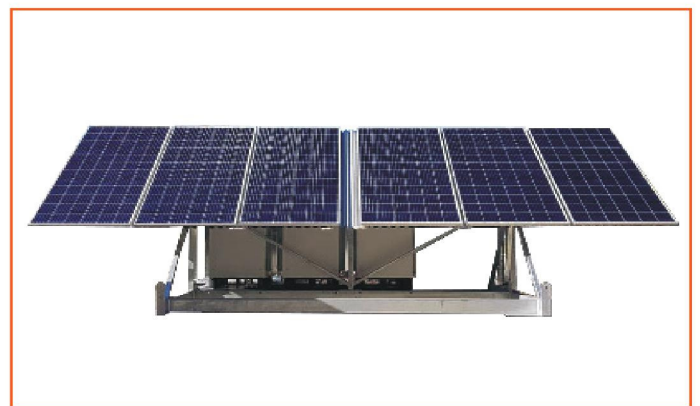


- MINING & HEAVY INDUSTRY
- URBAN INFRASTRUCTURE
- WATER & ELECTRICITY
- TRANSPORT
- DEFENCE
- COMMERCIAL
- OIL & GAS
- HEALTH
- RENEWABLE ENERGY
- BATTERY INDUSTRY



# OUR PRODUCTS

- INDUSTRIAL AC & DC UPS
- AC AND DC STAND ALONE POWER SYSTEMS
- LITHIUM BATTERY MODULES
- ENERGY STORAGE
- INDUSTRIAL AND DEFENCE RECTIFIERS & INVERTERS
- EV CHARGERS



# OUR PRODUCTS



## DC back up power solutions (DC UPS)

The MCR11 series battery charger is the ultimate in reliability and longevity. 100% Made in Australia, the MCR11 series combines phase controlled or switch mode rectification with the latest advancement in electronics and communication technologies and is suitable for all industrial batteries (Nicad, VRLA and Lithium). The MCR11 is used in for use in mining and utilities substations, power stations, marine, processing facilities, infrastructure and oil and gas. The MCR11 is available in ultra-rugged phase controlled and switch-mode versions



## Industrial AC back up power solutions (AC UPS)

Designed for high reliability and featuring microprocessor and OSP controls, the Magellan Power dual-conversion and bi-directional single-phase and three-phase UPS are rated for continuous operation at full load and overload. With full system remote diagnostics, monitoring and reporting via internet, along with integrated data and fault logging and settable software parameters, this equipment produces high quality backed up power for all industrial applications.



## Energy storage systems

The Australian designed and manufactured Magellan Commercial Scale Energy Storage System is designed for business use. It helps businesses break away from relying on the traditional break away from relying on the traditional power supply and associated costs. becoming more efficient and in control of their power use and spending. It helps maximise the use of solar power, reduce reliance on the grid, avoid paying for peak power and to rely on their own power when the grid falls.



## Commercial AC Backup Power Solutions (AC UPS)

Magellan offers a large range of rack mountable, transformer based and modular commercial UPS systems from 10kVA to 800kVA. These ranges of UPS are perfect for hospitals, airports, and large commercial projects. Magellan can also customize these systems in line with the specific project requirements and add features like extended autonomy, higher IP rating enclosure and galvanic isolation.



# OUR SOLUTIONS

## Technically Robust

Since our inception we have pursued a rigorous approach to the design, building, and testing of all the products and solutions that we deploy, with product reliability and longevity at the forefront of our minds. We continually invest in R&D inhouse or with our university partners to ensure we are at the forefront of the technical innovation required to meet the demands of the rapidly changing energy marketplace.

This enables us to fine-tune our solutions to fit our client's unique requirements, and ensure our products are built to last for years.

## Analytically minded

Right analysis leads to the right solution and our sales engineers have a wealth of experience living and breathing power systems. Scoping new projects properly from the very beginning, listening carefully to our clients needs and challenges, sharing insights and working with them to see a better way of doing things.

Once the objective is clear, our project engineers develop a competitive solution and deliver a quality product that are easy to use, work reliably, last longer and require less ongoing maintenance.

## Customer Focused

As a family owned business we know our customers. We know who they are, where they are, what they do and know their needs and constraints.

We develop solutions that best match their needs, delivered on time and on budget while offering support with spares and expertise over the course of our products lifetime.





# OUR SOLUTIONS

AC & DC POWER SYSTEMS



## Dampier to Bunbury Gas pipeline

The DBNGP is WA's key gas transmission pipeline stretching almost 1600 kilometres, linking the gas fields located in the Carnarvon Basin off the Pilbara coast with population centres and industry in the south-west of the state.

Magellan Power has been involved in the project for over 20 years, supplying DC back-up power systems in the 1990's and now, upgraded systems in the compressor stations.





# OUR SOLUTIONS

## COMMERCIAL UPS



### Optus Stadium | Perth

The Perth Stadium is a major sporting and entertainment venue, capable of attracting national and international events to Perth. With 60,000 seats, the standard of the stadium is world class.

Magellan was chosen by the project contractors to supply a solution for providing filtered 640kVA power for essential loads at the stadium, whilst providing 20 minutes back-up in the case of black out.



### Crown Tower Project | Perth

Perth Crown Towers is the largest hotel constructed in Western Australia, incorporating 500 luxury rooms, suites and villas within a world class resort complex. Magellan Power supplied 3 x 160kVA UPS's and 2 x 200kVA modular UPS's for the Data Centre.



Magellan Power provided 3 x 160kVA UPS's and 2 x 200kVA modular UPS's for the Data Centre, plus Magellan Batteries, preventative maintenance and 24-hour-support.



# OUR SOLUTIONS

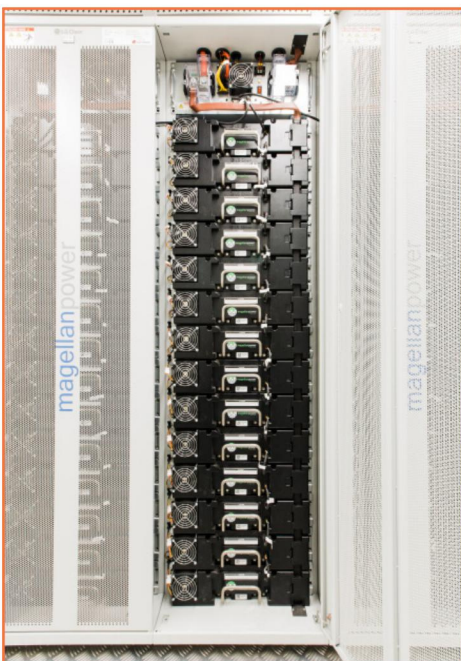
## ENERGY STORAGE

### Onslow Power Project

1 MW/500kWh Utility Scale Energy Storage System.

Magellan Power designed and supplied the Utility Scale Battery Storage System to one of Australia's largest solar and storage based microgrid projects - the Onslow Power Project in early 2018. The first stage of the project consisted of a new 5.25 MW gas-fired power plant which used a Magellan Utility Scale Energy (Battery) Storage System to optimise the efficiency of the power station and provide flexibility in managing future renewable growth of the town. Magellan supplied state of the art 1MW/500kWh battery storage systems in two 20-foot containers.

The completed battery storage will be used for Spinning Reserve and Black Start applications. Onslow is located near to Chevron's Wheatstone Gas Project, and has a growing demand for energy. The infrastructure for this project caters to this need, whilst using the latest in Australian renewable and battery storage technology.





# OUR SOLUTIONS

## Customized AC UPS System

### 100kVA 3PH Modular AC UPS

Magellan was approached by a water utility customer to design a modular and reliable 100KVA N+1 AC UPS system suitable to provide backup for their UV disinfection stage of their water treatment process.

Magellan custom designed and manufactured a modular 100kVA 3PH AC UPS systems housed in IP42 rated steel enclosures with integrated 300Ah high temperature VRLA batteries, BMS and external manual bypass switch. The solution included an isolation transformer for the bypass input and also an integrated load management system.



# OUR SOLUTIONS

## Stand Alone DC Power Systems

### 12VDC Stand Alone Power System

A mining customer approached Magellan to design a stand-alone power system suitable for their 12VDC legacy equipment, which they have across 500km of rail. The solution had to be one piece, easily deployable on site and very rugged to withstand the harsh environment of the Pilbara region and operate reliably for 25 years in hot outdoor locations.

Magellan custom designed and manufactured a 12VDC SPS in line with customer's specifications and the environmental requirements of the site being very cyclonic. The solution utilizes Australian made MPPT modules and HMI both pluggable and rack mountable, developed in house by Magellan. The skid has adjustable PV array angle for different locations and different times of year. The enclosures are outdoor rated and double skin, made of 3mm Aluminum suitable for harsh environments.





# OUR SOLUTIONS

## Stand Alone AC Power Systems

### 3Ph AC Containerised SPS with 25KW Solar Array and 98KWh Battery Bank

A mining client came to Magellan seeking a way to reduce their diesel consumption and wanted to introduce renewables to their power supply. Although they were an exploration camp reducing their carbon footprint was a priority and essential to the business ethos.

Whilst unable to run the whole site off solar, a decision was made to supply the camp accommodation from solar and battery with support from the generator in the winter months. The accommodation units were fitted with energy-efficient appliances to reduce the load.

Magellan provided a hybrid power system consisting of a Solar array and Lithium BESS, the BESS was installed in an air-conditioned container with the batteries, inverter and MPPT's. The RMS solar array was selected for it's ease of installation in remote areas and cost effective deployment with minimal civil works. The hybrid system integrated with the sites current genset which was called when required.



# OUR SERVICES

The Magellan Power Service Department is the beating heart of our "Steadfast Support of Our Customer", "Making products that last for years" and "25 year design life" core values.

Our Service department has been formed to support our promise to our customers of peace of mind when it comes to the reliability and dependability of our products. Magellan is the manufacturer of its products and our fully qualified and certified service workforce are expert supporters for our products.

Our technicians are fully trained in all aspects of AC and DC UPS and Energy Storage products and will bring to you the collective knowledge and experience of the entire Magellan Power engineering and manufacturing team.

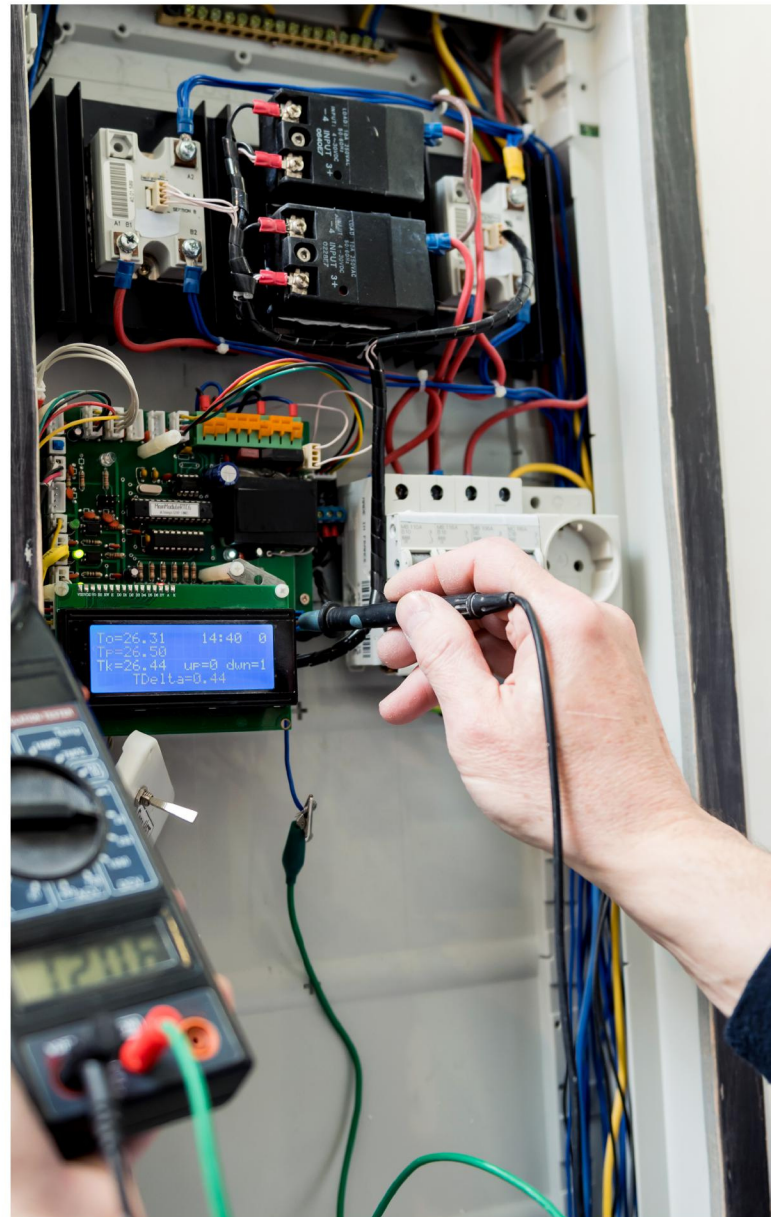
## Service Procedure:

1. Comprehensive visual and mechanical inspection.
2. Functional test.
3. Full battery health check including battery capacity test if feasible.

At the completion of each service, a full-service report will be submitted. The report will detail the repairs undertaken, action recommendations, and give a formal quote for any additional items if required.

## Insurances:

1. Workers Compensation
2. Public Liability Insurance
3. Marine Insurance





# OUR CERTIFICATIONS



# OUR CUSTOMERS

These organisations and many others trust Magellan Power for products and service.



64 Bushland Ridge  
Bibra Lake WA 6163  
+61 (08) 9434 6621  
sales@magellanpower.com.au  
magellanpower.com.au

Find us on LinkedIn 