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Solar Capability Statement

Delivering sustainable energy solutions


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Introduction

In 1998, Andrew Farrer and David Farrer joined forces to form DRASOL.

From there, we have grown to service the solar, civil, rail and waste water treatment industries in Australia. A family business, wholly South Australian owned and operated, made up of real people with the technical skills, expertise and equipment to get the job done.

At DRASOL we see investing in sustainability as the way to best serve our people, customers and communities we work in. This is our way of improving where we live today and for tomorrow.

Our values are based on reliability, respect, honesty, pride and integrity. These are the principles that define what we stand for at DRASOL and are at the core of everything we do.

Our purpose is to be an innovative and solutions-based company dedicated to these core industries in Australia.

As we grow and evolve, we always look out for each other and strive to do the safe and right thing by our people, customers and communities. It is this willingness to rise to the challenge that has taken us from our beginnings to becoming an innovative, solutions-based company, always open to new ideas and new ways of improving.

A new wave of sustainable and distributed energy

The number of solar farms under development in Australia has grown in recent years.

After several years of market and policy uncertainty and with construction costs coming down, solar farm developers and investors are feeling more confident about the prospects of medium-scale and large-scale solar power facilities.

Solar farms are distinguished from standard commercial solar installations by their size, location and purpose. Solar farms are generally in the megawatt (MW) scale and are ground-mounted as opposed to roof-mounted.

Built to sell energy into the grid or to a designated purchaser – usually a heavy energy user or other commercial entity aiming to lighten electrical load or reduce their emissions footprint with clean energy offsets.

Historically, that meant building fixed-tilt solar arrays. Now however, developments in technology have resulted in advanced single-axis tracking systems with streamlined deployment and greater energy production.

This in turn creates efficiencies and a positive return on investment for your next project.

These systems allow for easier construction design, offer better ground coverage, more yield and a faster payback.

DRASOL can install your solar farm in challenging locations, unconstrained from issues with terrain grades, flooding concerns or east-west facing slopes with a suitable design.

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561 MW and 17,823 trackers successfully installed

With more than 561 MW and 17,823 trackers successfully installed across a diverse range of solar farm projects in Australia, DRASOL provide a winning value proposition.

We are experienced in both large-scale and small-scale projects, working under the umbrella of both external client systems and as a self-managed contractor, we are capable of providing a turnkey solution.

At DRASOL, we have extensive experience in the NEXTracker system and a healthy working relationship with the manufacturer, resulting in the ability to build a quality product in a short time frame.

We have developed safe systems of work based around modular work groups. This greatly increases productivity with consistently high standards of quality workmanship.

On larger projects, rotation of work groups reduces fatigue and the negative effects of extended repetitive work.

DRASOL has a multi-skilled workforce trained in all aspects of mechanical installation, which allows us the flexibility to follow variances in tight project construction programs, and enables us to provide staff coverage in the event of absenteeism, should the need arise.

A core component of our construction teams are from indigenous backgrounds or members of rural communities which DRASOL have trained extensively. We believe it is important to invest in the local communities, both financially and with skills-based knowledge, and our approach is aligned with the goals of the Australian Industry Participation Policy.

Our core capabilities

1 Technical experience

Strong capabilities in all aspects of tracker and PV module installation, in addition to materials handling and logistics management.

2 Quality management system

In-house developed Quality Management System tailored to suit single-axis tracker install requirements, incorporating a full suite of supporting documentation to satisfy project QMP and inspection and test parameters.

3 Site-based teams

Site-based quality control teams operate alongside the installation crews, ensuring standards are maintained and remediation works are carried out promptly. This rolling work-front of completed works enables continual handover of parcels to our clients, allowing subsequent trades to carry out their tasks and provides an easy means of tracking progress.

4 Calibrated tooling

Investment in cutting-edge technology to provide advanced tools that increase efficiency and offer automated torquing of fasteners, eliminating potential variances that arise with equivalent manual equipment. DRASOL also own NATA approved laboratory standard calibrated test equipment, including a portable site unit for cross-checking of externally calibrated torque wrenches.

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5 Manufacturer-trained technicians

Manufacturer-trained technical staff with extensive experience in preventative maintenance and repair of the Huck tooling, minimising the likelihood of downtime due to mechanical failure. With the use of battery-operated portable tooling for rapid installation and remediation work, the need is reduced for heavy equipment to carry out disparate works or respond to specific client requests.

6 Diversity in large-scale and small-scale projects

DRASOL are experienced in large-scale and small-scale projects, working both under the umbrella of client systems and as a self-managed contractor responsible for providing turnkey solutions. We have a multi-skilled workforce, providing the flexibility to work on diverse projects of all types and sizes.

7 NEXTracker system

DRASOL has invested extensively in procuring the specific Huck tooling and ancillary equipment necessary for installing the NEXTracker system:

- Hydraulic installation tooling for Bobtail fixings and blind fasteners
- Pneudraulic and battery-powered tools for installation of PV modules
- Bespoke hydraulic cutting head for removal of installed fasteners
- Extensive range of spare tools, attachments and consumables

Additionally, we run a fleet of site-specific utility vehicles with coachwork modified to accommodate the tooling, spares, consumables and fixings. This configuration of independent core work crews offers flexibility of delivery and the adaptability to rapidly respond to client requests in a fluid site environment.

Our solar projects

SWAN REACH PUMP STATION & RAW WATER PUMP STATION

SA Water's 54km long Swan Reach to Stockwell Pipeline was built to supply the Barossa Valley, Lower North and Yorke Peninsula areas in South Australia. It was first used in the 1960s and was designed to supplement existing water supply.

Enerven were engaged by SA Water to deliver two photovoltaic utility grade solar installations at the Swan Reach to Stockwell Pump Station 1 and the Swan Reach Raw Water Pump Station. This project further enables SA Water to meet the goals of its Zero Cost Energy Future Program.

Pump Station 1 and Raw Water Pump Station saw the installation of 18,940 solar panels on an IXL fixed-tilt ground mount racking system.

DRASOL site management and mechanical installation teams again worked closely with long-time client Pilecom, to successfully complete this project ahead of time and on budget.

CLIENT	Pilecom
LOCATION	Fisher, SA
SERVICES	Mechanical & PV Module installation, Quality Assurance, Technical Support, Tooling and Materials handling.
SYSTEM	IXL – 18,940 modules on fixed ground mount framing structure
TIMELINE	2019-2020
CAPACITY	7.2 MW

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COONALPYN SOLAR FARM

DRASOL build crews mobilised in September 2020 to commence construction of the new Coonalpyn Solar Farm in South Australia's Murraylands.

The 5.9MW project, owned and operated by Flow Power, features ground-mount PV modules on NEXTracker's single axis tracking system.

Once finished, the power generated at Coonalpyn will be purchased in part by the City Of Adelaide.

Adelaide is now the first council in South Australia to use 100 percent renewable electricity in a power purchase agreement that ensures City of Adelaide's operations, including the Adelaide Aquatic Centre, U-Parks, depots and buildings, such as the historic Adelaide Town Hall, are powered by 100 percent renewable energy including that generated at Coonalpyn.

CLIENT	Flow Power
LOCATION	Coonalpyn, SA
SERVICES	Site facilities establishment, Civil works, Mechanical & PV Module installation, Technical Support, and Tooling.
SYSTEM	NEXTracker – 187 Trackers installed and 14,960 Modules
TIMELINE	2020
CAPACITY	5.9 MW

Our solar projects

MORGAN PUMP STATION 1

SA Water's Morgan – Whyalla No. 1 Pump Station, situated on the outskirts of the picturesque Murray River town of Morgan in South Australia's Riverland district, was the location for DRASOL's installation crews to construct a NEXTracker Horizon single-axis PV solar tracking system.

Next Generation Electrical were the Engineering, Procurement and Construction (EPC) manager for the site engaged by Enerven on behalf of SA Water.

SA Water as one of the state's largest electricity users, is seeking to effectively offset its electricity consumption through solar PV generation.

Our crews worked tirelessly throughout the warmer summer months to bring the project to a successful completion, ahead of time and to the satisfaction of our client.

CLIENT	Next Generation Electrical
LOCATION	Goyder Highway, Morgan, SA
SERVICES	Mechanical & PV Module installation, Quality Assurance, Technical Support, Tooling and Materials handling
SYSTEM	NEXTracker – 192 Trackers installed and 16,128 modules
TIMELINE	2019
CAPACITY	6.1 MW

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MORGAN PUMP STATION 2

SA Water's Morgan – Whyalla Pump Station 2 is one of a number integral pumping stations that distribute treated water all the way to Whyalla on the Eyre Peninsula of South Australia. The pipeline is approximately 379km long.

This project comprised the installation of 5.9 MW NEXTracker single-axis tracking system associated PV modules.

Many thanks to NGE, Enerven and SA Water for providing a harmonious working environment enabling the various contractors to interface with little disruption or loss of efficiency.

CLIENT	Next Generation Electrical
LOCATION	Maude, SA
SERVICES	Mechanical & PV Module installation, Quality Assurance, Technical Support, Tooling and Materials handling.
SYSTEM	NEXTracker – 184 Trackers installed and 15,456 Modules
TIMELINE	2019
CAPACITY	5.9 MW

Our solar projects

MORGAN PUMP STATION 3

SA Water's Morgan-Whyalla Pump Station 3 is the third out of a total of four pumping stations on the Morgan to Whyalla pipeline that delivers approximately 66,000 megalitres of valuable water annually to the Upper Spencer Gulf towns in South Australia.

Working closely with our client, Next Generation Electrical, our work teams successfully completed the installation of 19,656 PV modules mounted on 234 individual trackers across the 19 hectare site.

The final commissioning of this site will further reduce the asset owner's reliance on imported electricity to power the pumping station and various other assets.

CLIENT	Next Generation Electrical
LOCATION	Geranium Plains, South Australia
SERVICES	Mechanical & PV Module installation, Quality Assurance, Technical Support, Tooling and Materials handling
SYSTEM	NEXTracker – 234 Trackers installed and 19,656 modules
TIMELINE	2019
CAPACITY	MW

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MORGAN PUMP STATION 4

The final pumping station on SA Water's Morgan to Whyalla water pipeline also saw the DRASOL installation crews excel in the timely completion of 184 NEXTacker single-axis trackers mounted on 15,456 PV modules.

As part of SA Water's Zero Cost Energy Future Program, the Morgan pump station solar farms are integral to SA Water's goal of self-generating renewable electricity.

Our thanks to Next Generation Electrical and Enerven for providing DRASOL with the opportunity to be part of SA Water's landmark energy programme across a number of sites on the pipeline pump stations.

CLIENT	Next Generation Electrical
LOCATION	Robertstown, South Australia
SERVICES	Mechanical & PV Module installation, Quality Assurance, Technical Support, Tooling and Materials handling.
SYSTEM	NEXTracker – 184 Trackers installed and 15,456 Modules
TIMELINE	2019
CAPACITY	5.9 MW

Our solar projects

KADINA SOLAR FARM

The Kadina Solar Farm is located near the historic mining township of Kadina in rural South Australia.

Once fully completed, the power generated by the installation will feed the SA Power Substation located at Kadina East.

Across a 13 hectare site, over 15,800 PV solar panels and 198 trackers were installed in under three weeks due to the hard work and determination of the DRASOL work crew.

This project presented no problems and was a perfect job from start to finish.

The client, Green Gold Energy, was extremely happy with our efforts and DRASOL are extremely proud of what we accomplished together.

CLIENT	Green Gold Energy
LOCATION	Kadina, SA
SERVICES	Mechanical & PV Module install, Quality Assurance, Technical Support, Tooling and Materials handling
SYSTEM	NEXTracker – 198 Trackers installed and 15,840 modules
TIMELINE	2019
CAPACITY	5.8 MW

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DEAKIN UNIVERSITY SOLAR FARM

The DRASOL build crew travelled to Deakin University's Waurn Ponds Campus near Geelong in Victoria to construct a NEXTracker system designed for very "high slope" terrain at gradients of up to fifteen degrees.

Set on 14.5 hectares, this 7MW capacity project has been designed to supply 54% of Waurn Ponds campus' current power consumption and reduce approximately 12,00 tonnes of greenhouse gas emissions each year.

In addition, the solar farm will enable further research capacity, and educational opportunities for energy professionals of the future.

The combination of inclement weather and steep slopes produced awkward site conditions, but the install crew rose to the challenge and once again achieved completion ahead of schedule, maintaining DRASOL's unblemished track record.

CLIENT	Pilecom
LOCATION	Waurn Ponds, VIC
SERVICES	Mechanical & PV Module install , Quality Assurance, Technical Support, Tooling and Materials handling.
SYSTEM	NEXTracker – 237 Trackers installed and 19,716 Modules
TIMELINE	2019
CAPACITY	7.4 MW

Our solar projects

NOVA MINE SOLAR FARM

The remote location of the Nova Nickel-Copper Mine located in Western Australia, approximately 360 kilometres south east of Kalgoorlie, was no problem for DRASOL to mobilise their crew and equipment on the two day driving journey.

This 6.7MW solar PV farm on the Nova Mine will integrate with the mine's operating diesel power station, becoming Australia's first fully integrated hybrid diesel/solar PV facility.

The four week project saw the successful installation of 211 single-axis trackers with over 15,000 PV modules installed ahead of schedule.

CLIENT	Pilecom
LOCATION	Fraser Range, WA
SERVICES	Mechanical & PV Module install, Quality Assurance, Technical Support,Tooling and Materials handling.
SYSTEM	ARTECH – 211 Trackers installed and 15,148 modules
TIMELINE	2019
CAPACITY	6.7 MW

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SUNRAYSIA SOLAR FARM

In June of this year, DRASOL were given the opportunity to provide our services to Decmil at the Sunraysia Solar Farm located 22km south of the township of Balranald in New South Wales.

Joining the project in the later stages of construction, DRASOL completed 2,034 trackers (66.4MW) in ten weeks with a relatively small build crew.

Many thanks to the project team of Decmil, whose logistic support and site management systems enabled DRASOL to comfortably hit our targets and help deliver the project ahead of its scheduled completion date.

CLIENT	Decmil
LOCATION	Balranald, NSW
SERVICES	Mechanical install, Quality Assurance, Technical Support and Tooling.
SYSTEM	NEXTracker – 2,034 Trackers installed
TIMELINE	2019
CAPACITY	66.4 MW

Our solar projects

PORT PIRIE SOLAR FARM

Working with local South Australian company Australian Ground Mount Systems (AGMS) DRASOL completed the Port Pirie Solar Farm owned by the Renew Power Group.

The project was made up of 206 single axis trackers supplied by NEXTracker and 18,480 Jinko PV Panels.

As with any job of this size and nature, there are challenges, but with the help of the hard working DRASOL team it was completed in time for the other contractors to follow.

The crew were very proud of completing the full mechanical install from start to finish in a 5 week equivalent build programme, and MPower Solutions– the EPC were very happy.

CLIENT	Australian Ground Mount Systems (AGMS)
LOCATION	Port Pirie, SA
SERVICES	Mechanical install, Quality Assurance, Technical Support and Tooling.
SYSTEM	NEXTracker – 206 Trackers installed
TIMELINE	2018-19
CAPACITY	5 MW

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MOBILONG SOLAR FARM

In May, DRASOL took up the challenge of a new product installing the Arctech Skyline, for Western Australian company Balance Utility Solutions.

The project was a 5Mw Solar Farm with 15,729 panels at Murray Bridge South Australia, 70 kms east of DRASOL's home base, Adelaide. Learning a new system has its challenges but with the help of the excellent team from Balance, the hard working DRASOL crew completed the job to the satisfaction of the client.

It was a pleasure to work on a job where any issues that arose could be solved quickly and efficiently.

It was also another project where the piling was installed to a very high level thanks to Luke Cousins and his team at Pilecom. Looking forward to working with this team again soon.

CLIENT	Balance Utility Solutions
LOCATION	Murray Bridge, SA
SERVICES	Mechanical install, Quality Assurance, Technical Support and Tooling.
SYSTEM	Arctech
TIMELINE	2019
CAPACITY	5 MW

Our solar projects

BUNGALA SOLAR FARM

The Bungala Solar Farm Project is a solar power farm adjacent to Emeroo and Wami Kata near Port Augusta in South Australia. Stage One was connected to the grid in May 2018. The second and final stage was connected to the grid in early November 2018.

The completed project contributes 220 MW to the electricity grid from 275 MWdc generation and expects to produce 570 GWh per year. The DRASOL team installed the NEXTracker system with 9,342 trackers in total.

Key services included: the mechanical install above the pile, quality assurance, technical support and provision of custom tooling.

The project is in a culturally and environmentally sensitive location and was established with due consideration of local traditional heritage and the resident flora and fauna.

DRASOL sourced and engaged a significant proportion of our workforce from members of the local communities, investing heavily in the upskilling and training of these human resources.

Our engagement of these rural and indigenous community members promotes the positive effects of multiculturalism through the sector and is aligned with achieving the goals of the Australian Industry Participation Policy.

CLIENT	CATCON
LOCATION	Port Augusta, SA
SERVICES	Mechanical install above the pile (does not include piling work). Quality Assurance, Technical Support and Tooling.
SYSTEM	NEXTracker 9,342 Trackers installed
TIMELINE	2017 - 2018
CAPACITY	220 MW

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PETERBOROUGH SOLAR FARM

Developed by Renew Power Group, Peterborough Solar Farm is a 5.6 MW facility located in Peterborough, South Australia.

The clean power station consists of 15,624 Trina Solar panels mounted on NEXTracker single-axis tracking system and SMA inverters.

This medium-scale project comprising 194 trackers was installed by DRASOL in two working weeks, equating to a 30% time-saving in the client's mechanical construction programme.

Our highly flexible and multi-skilled personnel were able to react and adapt to the variances in task brought about by this condensed build schedule, maintaining efficiency whilst continuing to deliver a quality product.

DRASOL also installed the PV modules on this project, and by working under the framework of our internal QA system offered a turnkey solution requiring minimal input from the client.

The challenges of working in a relatively isolated location were negated by our extensive remote support capabilities, as we have a suite of spare tooling packages and OEM-trained mechanics to service and repair our specialist Huck tooling on site.

CLIENT	GCo Electrical
LOCATION	Peterborough, SA
SERVICES	Mechanical install above the pile (does not include piling work). Quality Assurance, Technical Support , Tooling, PV Modules and Materials Handling.
SYSTEM	NEXTracker 194 trackers installed and 15,624 Modules
TIMELINE	2018
CAPACITY	5.6 MW

Our solar projects

WOODLAWN SOLAR FARM

The Woodlawn Solar Farm is a 2.4 MW facility located in Woodlawn, New South Wales.

The clean power station consists of the NEXTracker single-axis tracking system.

This 90 tracker installation was established to provide energy for the bio-waste reactor at the Veolia Woodlawn recycling facility.

DRASOL constructed the trackers and installed the modules on piles driven by others in challenging terrain, adapting our construction methodology to meet the specification and parameters of a high-slope design.

Our flexible delivery model combined with the speed and quality of install enabled the client to achieve a 40% compression in time-critical tasks, with DRASOL completing our package of works in the equivalent of a 2-week build programme.

CLIENT	AUSGMS
LOCATION	Woodlawn, NSW
SERVICES	Mechanical install above the pile (does not include piling work). Quality Assurance, Technical Support, Tooling, PV Modules and Materials Handling.
SYSTEM	NEXTracker 90 trackers installed and 7,200 Modules
TIMELINE	2018
CAPACITY	2.4 MW

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ROYALLA SOLAR FARM

The Royalla Solar Farm is a 20 MW facility located in Royalla, ACT.

DRASOL supplied the mechanical installers and technicians for this project as specified by the client.

This project delivered significant benefits to Royalla and the wider community – in particular new clean electricity to meet the region's energy needs.

Working under challenging environmental and weather conditions our expertise enabled the client to successfully complete this project.

Image sourced from: royallasolarfarm.com.au

CLIENT	CATCON
LOCATION	Royalla, ACT
SERVICES	Supply mechanical installers and technicians.
SYSTEM	FIXED
TIMELINE	2014
CAPACITY	20 MW

Our solar projects

MOREE SOLAR FARM

The Moree Solar Farm commenced construction operations in February 2015 and 12 months later it started supplying electricity to the grid.

A 56 MW facility located in Moree, NSW. DRASOL provided mechanical installers and technicians as required by the client.

The NEXTracker system continually oriented the solar panels with the arc of the sun, increasing power output each day.

Delivering new clean electricity to meet the region's energy needs and help further the development of the Australian renewable energy industry.

Image sourced from: moreesolarfarm.com.au

CLIENT	CATCON
LOCATION	Moree, NSW
SERVICES	Provide mechanical installers and technicians.
SYSTEM	NEXTracker
TIMELINE	2015
CAPACITY	56 MW

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BARCALDINE SOLAR FARM

The Barcaldine Solar Farm is a 25 MW facility located in Barcaldine, QLD. The 93 hectare site has approximately 79,000 solar modules.

The site generates approximately 53,500 megawatt hours of renewable energy each year.

The project has been designed using single-axis tracking technology maximising the total energy generated and the effectiveness and efficiency of each of the panels.

DRASOL mobilised a team of mechanical installers and technicians to deliver to the client's requirements, timeline and budget.

Image sourced from: reneweconomy.com.au

CLIENT	CATCON
LOCATION	Barcaldine, QLD
SERVICES	Provide mechanical installers and technicians.
SYSTEM	NEXTracker
TIMELINE	2016
CAPACITY	25 MW

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