



GEMENERGY

Capability Statement



SYDNEY THEATRE COMPANY



BRISBANE CONVENTION & EXHIBITION CENTRE



GEM Energy

Thank you for taking the time to review GEM Energy's capability statement. As one of Australia's most experienced and awarded providers of commercial and industrial solar energy solutions, we are proud to showcase our technical capability, project delivery excellence, and commitment to long-term performance.

Backed by RACQ — one of Queensland's most trusted organisations — GEM Energy has delivered more than \$300 million worth of solar and battery projects nationally. We specialise in turnkey solutions across government, defence, education, retail, logistics, and agriculture, with a strong focus on safety, quality, and sustainability.

GEM Energy has been recognised with multiple Clean Energy Council (CEC) and other awards, including the Best Solar Design & Installation for a 638kW system at Australia Zoo .

This document highlights the breadth and depth of our industry expertise and demonstrates why GEM Energy continues to lead the market in delivering smart, reliable, and future-ready solar and battery solutions.

Jack Hooper

CEO & Founder, GEM Energy



Unity of Two Leading Brands

RACQ's investment in GEM Energy – an award-winning leader in solar and battery storage – strengthens our ability to deliver an unmatched offering to the Australian energy market.

Together, our vision is to provide small, mid-market, and large-scale commercial businesses with integrated, turn-key energy solutions that enable smarter energy management – delivering both cost efficiency and environmental sustainability.



An Australian energy efficiency and renewable energy services provider, established in 2013 in Emerald, Queensland.



3 x Clean Energy Council Design and Installation award winners for large scale commercial and battery systems.



Diversified and integrated portfolio of solar energy-related services, including design, engineering, procurement, project management, installation, commissioning, and asset management.



Operates nationally with capability to service any region in Australia.



Uses a network of contractors and a team of over 50 employees, including in-house consultants, engineers, project managers and quality assurance officers.



Clients include; QUBE, Cleanaway, Australia Zoo, Hutchinson Builders, Uniting Care Australia, Vicinity Centres, Catholic Education, Charter Hall and many more.

"This unity of two leading brands brings together the skills and capabilities of RACQ with the expertise and services of GEM Energy."

David Carter, CEO, RACQ



RACQ, a multi-disciplined and financially strong organisation, has been delivering services to Queensland for over 100 years with annual revenues of more than \$1.5bn. RACQ brings logistics experience and a commitment to safety and quality that complements GEM Energy's recognised capabilities in delivering technical and complex multi-site installations.



A diverse Queensland organisation, RACQ was established in 1905 and today provides roadside assistance, insurance, banking, travel and solar energy services to its more than 1.7 million members.



Extensive experience in the delivery of large-scale contracts, underpinned by RACQ's proven capability in managing complex service networks and operational partnerships across Queensland.



Financially sound, with revenue of \$2.3bn and net assets of \$1.4bn.



Since 2011, the RACQ Foundation has distributed more than \$15 million to assist more than 500 Queensland community groups affected by natural disasters and drought.



Strong corporate, commercial and government relationships supported by an active public policy and advocacy team.



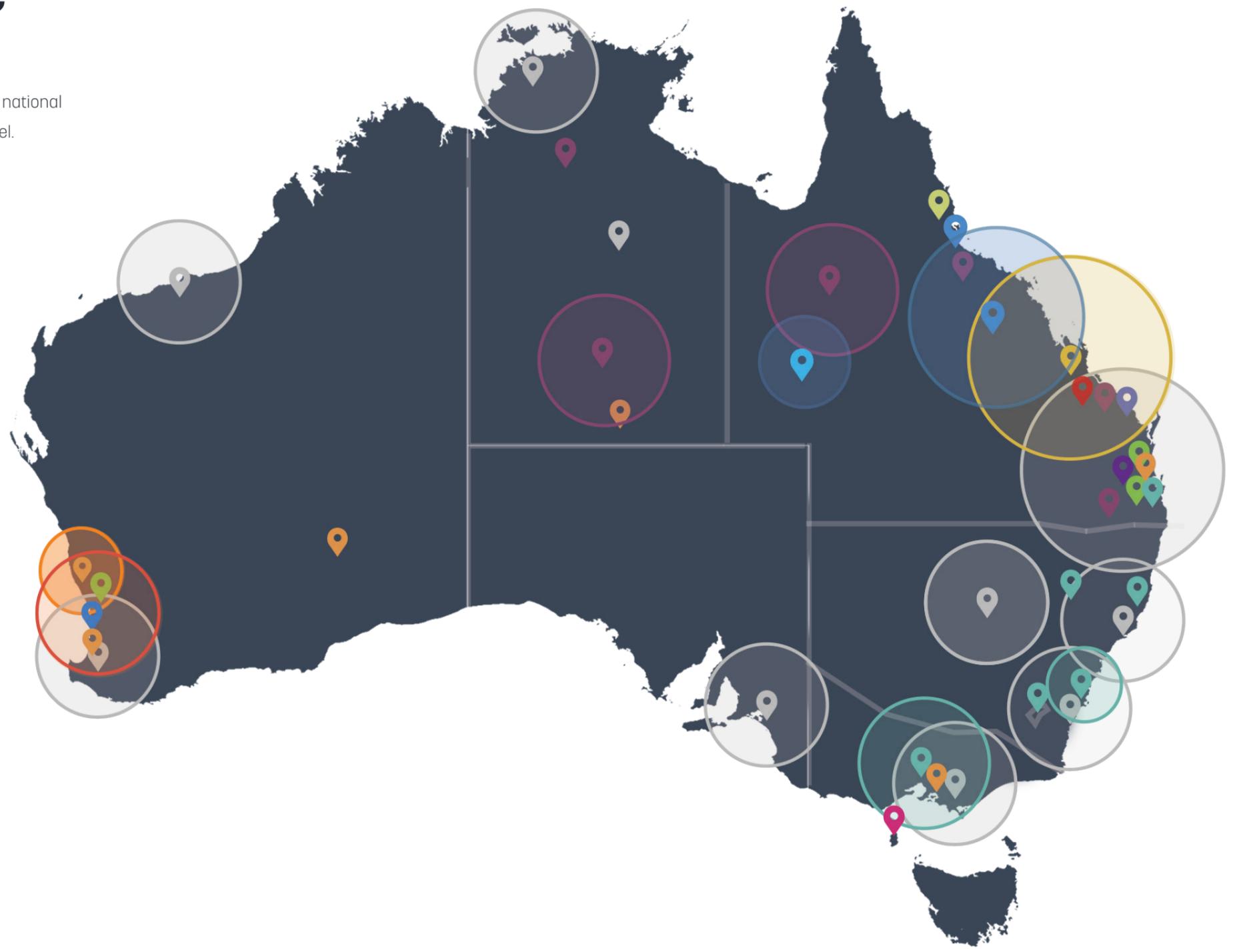
RACQ's vision is to be the trusted partner for our members providing solutions to move and live safely, securely and sustainably.

Experts At Any Scale

From small in-home installations to supersized commercial installations, and national portfolio management - GEM Energy has a wealth of experience at every level.

10,000+ Projects Completed
\$250M+ Projects Delivered

- Vicinity Centres**
Perth; 700kW
Gympie; 914kW
Taigum; 1.1MW
Runaway Bay; 1.3MW
- Catholic Education Diocese of Rockhampton**
6MW Solar and
4MWh Battery Storage
- Catholic Education Diocese of Townsville**
5MW Solar and
8MWh Battery Storage
- Friendly Society Private Hospital**
545kW Solar and
LED Lighting
- Ingenia Communities**
3MW Solar across
50 sites nationally
- Uniting Care Queensland**
Solar and
LED Lighting
- Cleanaway**
2.MW Solar
installed nationally
- DFO Cairns**
1.4MW Solar
- King Island Solar Farm**
1.5MW Solar
- Coates Hire**
1.3MW Solar
- Australia Zoo**
638kW Solar
- Brisbane Convention & Exhibition Centre**
309kW Solar



Milestones & Achievements

2013-2014

GEM Energy Founded

- Founded in Emerald by Jack Hooper
- First 100kW solar installation at Austchilli, QLD



2013-2014

GEM Energy's First Awards

- 2 x CEC Design & Installation Awards
- Catholic Education Rockhampton; 6MW Solar and 4MWh Battery Storage across 50 schools

2016-2017

Major Projects Announced

- 1MW at Brisbane Technology Park
- 1.1MW at Independent Pub Group
- CEC Design & Installation Award

2018-2019

GEM Energy Keeps Growing

- 638kW at Australia Zoo
- 1.4MW at DFO Cairns
- CEC Design & Installation Award

2019-2020

Clean Energy Council Board

- CEO & Founder, Jack Hooper is appointed to the CEC Board
- 3-year pipeline of projects
- Overall Commercial Solar Installer Top 10 Award

2024-2025

Record Growth Across GEM Energy

The Residential department of GEM Energy (trading as RACQ Solar) saw record growth over FY25, with 160% increase in sales from FY23 to FY25

The Commercial team saw the commencement of a multi-year rollout of 30+ shopping centres for a major retail client, and was successful in receiving ARENA funding to deliver 10MW of battery projects.

2023

GEM Energy & RACQ Solar Awards

- Overall Commercial Solar Installer Top 5 Award
- Top 10 Solar Installer for Queensland Award

2022

RACQ Becomes Majority Shareholder

In early 2022, RACQ became the majority shareholder in GEM Energy, with the residential department rebranding to RACQ Solar. This partnership allows RACQ to offer solar and battery system installations to its members and the wider Queensland community, combining RACQ's trusted brand with GEM Energy's expertise in solar technology.



2021

More Major Projects & Awards

- 309kW at Brisbane Convention and Exhibition Centre
- Catholic Education Townsville; 5MW Solar and 8MWh Battery Storage
- Top 10 Solar Installer for Queensland Award

The GEM Energy Difference

GEM Energy stands apart through a unique combination of technical excellence, deep industry experience, and a steadfast commitment to quality.

With over \$300 million in completed projects and recognition as one of Australia's top commercial solar providers, we bring a proven track record to every job.

Our in-house team of engineers, project managers, and analysts ensures that every solution is carefully designed, seamlessly delivered, and fully supported – no matter the complexity.

Premium-grade components, rigorous installation practices, and a focus on long-term value ensure systems that perform and last. From large commercial rollouts to high-profile government and education projects, our work reflects a genuine dedication to safety, sustainability, and customer success – that's the GEM Energy difference.

*When it comes to solar at scale,
GEM Energy sets the standard.*

GEM Energy Certifications

Our dedicated team of engineers, project managers, and analysts manage every stage – from design to delivery to post-install support – ensuring consistency, accountability, and technical excellence throughout the journey.



Built For End to End Success

1. Analysis & Design

Our dedicated team of engineers, project managers, and analysts manage every stage – from design to delivery to post-install support – ensuring end to end accountability, and technical excellence throughout the journey

2. Process & Safety

We work closely with your stakeholders – from early planning through to approvals and handover – keeping communication clear, expectations aligned, and decisions informed at every milestone.

3. Mobilisation & Installation

With over \$300 million in completed projects across commercial, government, and education sectors, we bring confidence, experience, and industry insight to every job.

4. Stakeholder Engagement

By using only top-tier equipment, adhering to best-practice standards, and backing projects with RACQ's financial strength, we ensure your system performs reliably for the long haul.

5. Asset Management

Our commitment doesn't end at commissioning – we provide continuous monitoring, maintenance, and performance optimisation to protect your investment and maximise returns well into the future.

Solutions For Any Project

“The quality of the workmanship and attention to detail exceeded our expectations. The installed systems are now contributing significantly to our sustainability goals, enhancing our energy efficiency, and reducing our carbon footprint.”

- iSeek Data Centres



Education & Childcare

We deliver safe, efficient solar solutions for schools, colleges, and childcare centres, reducing energy costs while supporting sustainability goals.



Agricultural

Our high-performance solar solutions help farms and agribusinesses reduce operating costs and improve long-term sustainability through reliable, clean energy.



Shopping Centres

We design high-yield rooftop solar systems for shopping centres, helping reduce operational costs and enhance green credentials.



Key Landmarks

GEM Energy powers iconic Australian sites with tailored solar solutions that meet strict design, safety, and performance standards. Such as Australia Zoo, Brisbane Convention & Exhibition Centre, and Sydney Theatre Company.



Government

We deliver reliable, compliant solar infrastructure for government projects, aligned with public-sector energy and sustainability targets.



Warehouses & Offices

Our commercial solar systems help warehouses and offices lower energy bills, improve efficiency, and support ESG outcomes.



Residential

GEM Energy, trading as RACQ Solar, provides reliable and efficient residential solar solutions tailored for Queensland homes.



Carparks

We transform carparks into energy-generating assets with solar shade structures that provide both coverage and clean power.

Commercial Solar Installation

At GEM Energy, we specialise in delivering tailored commercial solar installations that help businesses reduce energy costs, improve sustainability, and achieve energy independence. Our end-to-end service ensures seamless project delivery from initial consultation through to ongoing support.

Our Turnkey Approach

We manage every step of your solar installation with precision and care, including:

- **Site Assessment & Energy Analysis:** Understanding your unique energy profile and site conditions.
- **Custom System Design & Engineering:** Creating solutions tailored for efficiency, compliance, and scalability.
- **Procurement & Quality Assurance:** Sourcing premium equipment from trusted suppliers.
- **Project Management & Installation:** Coordinating all logistics to ensure timely, safe, and high-quality installation.
- **Commissioning & Handover:** Rigorous testing and full system handover for seamless operation.
- **Ongoing Monitoring & Maintenance:** Proactive servicing to maximise performance and lifespan.

Complex and Bespoke Systems

GEM Energy is experienced in delivering commercial solar projects in a variety of challenging environments, including:

- Inner-city sites with space constraints
- Large-scale ground-mounted solar farms
- Regional and remote locations with off-grid needs
- Integrated solar and battery storage systems



Sydney Theatre Company
385kW Solar



Shalom College Bundaberg
1.16MWh Battery // 810kW Solar

Commercial Battery Storage

GEM Energy is a leader in integrating commercial battery storage with Frequency Control Ancillary Services (FCAS) and wholesale energy markets, offering tailored strategies to optimise energy resilience and revenue generation for businesses.

Our in-house experts design and deliver systems that reduce reliance on the grid, lower operating costs, and unlock new revenue streams through energy optimisation.

Turnkey Solutions From Start to Finish

We manage every aspect of your battery storage project in-house, providing a seamless experience from consultation through to long-term support:

- **Feasibility & Energy Modelling:** Understanding your usage profile to size and scope the right system
- **Custom System Design:** Tailored to your site, load requirements, and financial objectives
- **Financial Analysis:** Cash Flow modelling, tariff evaluation, and business case development
- **Procurement:** Access to trusted technology partners and Tier 1 battery suppliers
- **Engineering & Project Delivery:** Certified designs, grid approvals, and quality installations
- **Monitoring & Servicing:** Ongoing support to keep your system performing at its peak

Built for Complexity and Scale

From regional installations to large-scale, inner-city integrations, GEM Energy is trusted to deliver battery systems that perform in diverse, demanding environments. Whether you're adding storage to an existing solar system or building a fully integrated energy solution from the ground up, we deliver with precision.

Solar Carport Structures

GEM Energy specialises in the design and delivery of advanced solar carport structures that maximise energy output while enhancing site aesthetics and functionality.

Single-Axis Design

Best suited for sites with clear northern exposure, the single-axis structure features a raised tilt on one side, optimised to capture maximum solar irradiance throughout the day—ideal for high-output performance.

Butterfly (East/West) Design

Engineered for sites where northern access is limited or shaded, this design utilises east- and west-facing panels with a central gutter to manage rainwater. It balances energy generation throughout the day while maintaining structural elegance.

Key Benefits

- Transforms car parks into high-performing solar energy systems
- Supports the use of bifacial solar modules, increasing yield by capturing reflected sunlight from beneath the structure
- Visibly showcases your commitment to clean energy and sustainability
- Achieves significant cost savings through energy generation and carbon footprint reduction
- Enhances the user experience with shaded, weather-protected parking
- Compatible with all PV module types, alignments, and inclinations
- Engineered for fast installation with minimal site disruption



Engineering & Consulting

GEM Energy offers comprehensive engineering and consulting services to support every stage of your solar and energy storage project. Our in-house team of engineers and energy experts work closely with clients to develop tailored, cost-effective solutions that meet technical, commercial, and sustainability goals.

From initial feasibility studies and energy modelling through to detailed system

design, grid connection, and compliance, we provide expert guidance to ensure seamless project execution and long-term performance.

Services Include

- Site assessments and feasibility analysis
- Electrical and structural system design
- Grid connection and regulatory compliance
- Energy modelling and financial forecasting
- Tendering and project oversight

Asset Management

GEM Energy provides full-scope asset management services to ensure the long-term performance, reliability, and financial return of your solar and energy storage systems. Our expert team monitors, maintains, and optimises your assets with a proactive approach to minimise downtime and maximise energy yield.

Using advanced monitoring platforms and data analytics, we deliver actionable insights and performance reports to help you

make informed decisions and maintain compliance with regulatory and contractual obligations.

Services Include

- 24/7 system monitoring and fault response
- Performance analysis and reporting
- Preventive and corrective maintenance
- Warranty and compliance management
- Lifecycle optimisation and repowering strategies



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RACQ is the majority shareholder in GEM Energy Australia Pty Ltd (ABN 25 164 579 382, Electrical Contractor Licence 78701) trading as RACQ Solar (GEM Energy). All goods and services are provided by GEM Energy.



SHALOM COLLEGE



AUSTRALIA ZOO