

# Solar photovoltaic solutions

**Solar**

**Solar photovoltaic solutions.** Solar photovoltaic solutions mitigate the risk of being exposed to unpredictable electricity tariff increases and provide a financially sound alternative energy supply.

**25 years**

**25 years.** Solar photovoltaic systems have a design life in excess of 25 years and can last for as long as 35 years.

**Modular**

**Modular.** The renewable energy solutions are extremely modular and can be increased in size at any stage.

**10m<sup>2</sup>**

**10m<sup>2</sup>.** Solar irradiation conditions in South Africa generally require a 10m<sup>2</sup> rooftop or ground area per 1kWp of solar electricity generation.





**Datacentrix has partnered with Solareff (Pty) Ltd, one of the largest specialist solar photovoltaic (PV) companies in Southern Africa that supplies both rooftop and ground-mounted solar solutions. The company has more than a decade's experience in providing renewable energy to the region's commercial, agricultural, industrial and residential sectors.**

Solareff's broad experience ranges from 20KWp solar power installations to as large as 5MWp installations, including the largest single rooftop solution in the southern hemisphere. The company is recognised as a market leader in its field. As a developer and EPC (engineering, procurement and construction), Solareff delivers end-to-end PV systems involving:

- leading design and engineering of rooftop and ground-mounted, off-grid and grid-integrated solar solutions;
- procurement, construction and installation of the best quality products at competitive pricing;
- commissioning solutions that deliver or exceed power generation expectations;
- monitoring; and
- after sales support and management

Proven project management principles are applied to all installations, including effective time, scope and cost management as well as contract, supplier, quality and risk management. The company also ensures compliance with the required standards, as well as local and national regulations.

Datacentrix' partnership with Solareff stems from the growing demand for solar PV installations. The demand is driven by increasing electricity costs and load shedding instances; the decreasing cost of solar PV technology; the low maintenance costs; and the extended life of the hardware.

The strategic partnership with Solareff will extend Datacentrix' existing solution offering into the exciting, renewable energy space. Pinnacle Holdings Limited, ICT distribution group, is the majority shareholder of both Solareff and Datacentrix.

### Delivering value through partnerships

Solareff has forged strong alliances with the industry's leading, tier one equipment manufacturers. The company's top partner certifications warrant direct procurement, approved service accreditations and quality support services from the partners. The established supply chain enables fast mobilisation and turnaround times, delivering time and cost efficiencies to the process.

### Staying abreast of industry developments

Quality, safety and compliance are at the heart of Solareff's business. The company:

- Is a member of Southern African Alternative Energy Association (SAAEA) and South African Photovoltaic Industry Association (SAPVIA);
- Serves on the Grid Access, and the Embedded Generation sub-committees of SAPVIA;
- Engages with respective government forums (National Energy Regulator (NERSA), Eskom and local municipalities) to ensure regulatory compliance; and
- Engineers are registered with the Engineering Council of South Africa (ECSA).

One of the company directors served on the South African Grid Code Committee that is developing the standard for grid connection of renewable energy sources and the company continues to be directly involved in the development of regulatory frameworks and the compilation of alternative energy legislation.

### Custom-engineered solutions for optimal performance

Solar PV solutions are customised and engineered to ensure an optimal solution according to specific customer needs, which is essential for safeguarding the economic feasibility of projects. Other considerations include: the available roof space; roof orientation and gradient; shading challenges; geographical location; and the current electricity tariffs.

**Installations:** Installations comply with Eskom grid-access and synchronisation, NRS 097 requirements, as well as compliance with the South African Renewable Energy Grid Code.

**Records management:** A record management plan ensures the accuracy of site documentation and that the equipment installed is tracked to assist future batch analysis and fault finding.

**Inspecting, testing and commissioning:** All components are installed, validated and optimised according to the customer specifications and in compliance with factory requirements.

**Operations and maintenance:** Facilities are proactively managed to ensure optimal power generation and to detect and correct any faults timeously. Service delivery is measured against pre-determined service level agreements (SLAs).

**Thermal imaging:** Thermal scans identify areas where energy losses occur, ensuring optimal system efficiency and yield.

**Online monitoring system:** System performance is tracked and monitored online, giving customers immediate electronic and smartphone access to real-time performance data. Inordinate variances between inverters or strings activate an e-mail or sms alert to minimise potential generation loss.

**Performance warranties:** Performance warranties provide customer compensation for shortfalls in the warranted output where Solareff has full access and control of the system (T&Cs apply).

**Guaranties and warranties:** Solar PV modules generally carry a 10-year manufacturer warranty and a 25-year power output warranty of 80%, meaning that the panels will still produce 80% of the power that they produced at the time of installation. Inverters carry a standard 5-year warranty with an option to extend the warranty to 25 years.

**Maintenance:** A key feature of a solar PV installation is the low maintenance. Maintenance entails removing dust from the modules with water, visible inspection and monitoring of production to honour factory warranties.



Diphale Citrus 100kWp ground-mounted solution



Midstream Medical Hill solar PV carport project



Clearwater Mall inverter area 1



## Delivery capability supported by a multi-disciplinary team

Solareff's multi-disciplinary specialists are experienced energy consultants and are well versed in industrial energy efficiency, feasibility studies, simulations, research and development. The dedicated team delivers excellent project management and customer service and comprises:

- Professional electrical engineers that manage the design, engineering and construction of installations;
- Project management professionals (PMPs);
- Certified energy managers (CEMs);
- Master wiremen; and
- Legal, compliance and financial experts in the fields of construction, engineering, contract, property and environmental law.

## On-going commitment to quality

Solareff is customer-focused and committed to delivering consistently high levels of service in line with ISO 9001 principles, as well as:

- Staying on time and in budget on every project;
- Communicating timeous and effective progress updates to customers;
- Employing specialist team members that are trained to minimise risk and waste;
- Maintaining quality levels to ensure that manufacturers' warranties are honoured; and
- Staying abreast of industry developments and improving processes continuously.



1.5MWp installation at Clearwater Mall, 3 sections of 500kWp



90.2kWp installation for Atterbury Group at the Novartis building

## Technology partners



### About Datacentrix

Datacentrix is a complete ICT systems integrator, providing solutions and services across the full information value chain to its customers. The company uses leading technologies to drive customer business strategies, unlocking efficiencies and empowering meaningful business insight.

Our most valuable assets are captured in the minds and spirit of our people. Every person at Datacentrix is a critical part of our service delivery model and our strategy for generating sustainable value for our customers and stakeholders.

We value partnerships and go the distance to establish trusting, lasting customer and stakeholder relations. Our longstanding affiliations and accreditations with our technology partners enable direct access to technology using the shortest channels.

It's our passion for excellence that drives our innovative and flexible solution design. Datacentrix' value-driven strategy and proven execution capability reinforce its position as one of the top ICT players in the local market.

#### Corporate office

Corporate Park North  
238 Roan Crescent, 1685  
Old Pretoria Road, Midrand

Tel: +27 (0)87 741 5000

#### Logistic centre

26 Landmarks Avenue  
Kosmosdal, Extension 11  
Samrand, Midrand

Tel: +27 (0)12 657 5000

#### Cape Town office

18 Oxbow Crescent  
The Estuaries  
Century City, 7441

Tel: +27 (0)21 529 0700

#### Port Elizabeth office

175 Cape Road  
Mill Park  
Port Elizabeth

Tel: +27 (0)41 391 0200

#### East London office

8-10 Winkley Street,  
Chesswood Office Park  
Block B, Berea, East London

Tel: +27 (0)43 705 8000

#### Durban office

Ground Floor, 6 The Terrace  
Westway Office Park  
Westville, Durban

Tel: +27 (0)87 741 9000