



# superfly

## Company Profile

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TIN: 1037717

Solomon Islands Electrical Contractor's License: 164 – 50 – 17

## Company Background

Superfly was established in 2011 as Solomon Islands only quality-focussed solar provider. Our consulting and project management experience gives us an edge over other solar companies in the Solomon Islands. We refuse to buy 'off the shelf' solar kits direct from overseas manufacturers; rather, we design our own systems and ensure that each component is sized correctly, and is of a quality that we would be happy to use in our own homes. Further, we take the time to provide user training that explains the limits of their systems and the methods of operation that will guarantee a long system life. Sustainability is essential for us, for our project partners and for the end users.

Superfly has delivered a wide range of successful projects for clients such as Solomon Islands Government Ministry of Health, The World Bank, South Pacific Regional Environment Program (SPREP), Secretariat of Pacific Communities (SPC), Global Sustainable Energy Solutions (GSES), Barefoot Power and Anglican Church of Melanesia.

Superfly is a member of the Sustainable Energy Industry Association of the Pacific Islands (SEIAPI) and Superfly staff has maintained an executive position on the board of SEIAPI since 2015.

Superfly is also registered as an Electrical Contractor (License Number: 164- 50-17) under Solomon Islands Electricity Authority. This means our installations are compliant under the Solomon Islands Electricity Act; unlike many other solar providers in Solomon Islands.

Please consider Superfly for your solar needs!

## Superfly' Mission

Superfly' mission is to provide the best sustainable energy products and services in the Solomon Islands. Our values are Sustainability, Quality, Integrity and Continuous Improvement. These core values guide us in everything that we do and in all decisions that we make.

## Superfly' Approach

Superfly' products, services and its approach is what separate it from competitors in the Solomon Islands.

### ✓ Expert Solar Design and Installation

Superfly provides a full suite of design, supply, installation and back up support for PV systems within the Solomon Islands. From mini grids and systems with diesel back up, to small 'DC' only systems; Superfly takes the same rigorous approach of:

- ▶ Understanding client's energy aspirations and budget
- ▶ Designing a PV system to meet these needs
- ▶ Installation of PV system in accordance with SEI-API standards
- ▶ User training in system operation, system limitations, system monitoring and troubleshooting
- ▶ Back up servicing, inspection and support

Our systems follow the design and installation guidelines outlined by the Sustainable Energy Industry Alliance of the Pacific Islands.

We will never use AGM lead-acid batteries (like nearly all of our competitors) as these batteries are not meant for the hot climates within Solomon Islands. These batteries are lucky to survive more than 1 year; and the very best, most careful user is able to obtain 3-year service life from them. We're not in business to make a quick buck; we only sell GEL batteries, as they have a 5 year design life, with the ability to achieve up to 10 years with careful use.

#### ✓ Selection of Quality Components and Reputable Partners

Superfly leans on its Australian supply networks for competitive pricing of the highest quality components. Superfly are experts with Victron's range of charge controllers and uses its Australian supply connections to secure competitive rates for SMA inverters, Sonnenchein, BAE, Battery Energy and Hoppercke batteries.

#### ✓ Selection of Quality Components and Reputable Partners

Superfly was founded by Gavin Pereira, a solar engineer who earned a Bachelor of Engineering in Photovoltaics and Solar Energy from the University of NSW, graduating in 2007 with honours. He moved to Solomon Islands in 2011 with the aim to develop Superfly into a leading solar provider. He has always taken a 'development' approach to business and has worked closely with Solomon Islands citizens as shareholders, managers and installers.

Gavin recruited Tapera Bird into Superfly in 2014. Tapera was working full-time with Solomon Islands National University as an electrical and solar instructor; and would provide electrical supervision and installation support for Superfly until July 2017. Tapera is now full-time with Superfly and is the General Manager of the business.

Tapera Bird is a TAFE NSW qualified Electrician (allowing him to work as an Electrician in Australia), and now that he is fulltime with Superfly, will be able to practice as a Grade A electrician in Solomon Islands.

He has more than a decade of solar installation experience and has received expert training in solar from the largest University in USA (Arizona State University) who are world leaders in PV.

## Portfolio

Superfly retails a selection of the commonly requested controllers and inverters from Victron; as well as Gel Lead Acid batteries for customers that are wanting a quality alternative. Below is a snapshot of some of the larger installations that we have performed for our clients.

### [Installation of 3.8kW PV System at Tabaka Rural Training Center \(2017\)](#)

Superfly was contracted by the Methodist Church of New Zealand and United Church of Solomon Islands to provide installation of a 3.8kW PV system for Tabaka Rural Training College in the Western Province of the Solomon Islands. The system contains a 3.8kW PV Array, which is connected to a 5kVA Victron EasySolar unit, which is an all-in-one unit that contains the PV charge controller, inverter, AC Main Switch Board and User Interface. The system has a 48 volt, 750 Amp-hour, BAE (a leading German manufacturer) OPzV Gel Lead Acid battery bank which is designed to provide 3 days of back-up energy storage. The battery bank is designed to provide 15 years of service and comes with a battery monitor, which allows the Principal of the school to control energy load and power off certain loads during cloudy periods.

The system provides power to the majority of buildings on the school, including staff houses, auditorium, class rooms and a canteen. The school buildings are connected via a single-phase buried cable mini-grid, which was run in heavy duty conduit, and covered with sand, dirt and is marked with a 'no-dig' marker, in accordance to Solomon Islands wiring standards.

The EasySolar can also be connected to the school's diesel generator, but its operation over the first 7 months has shown that the PV array is adequately sized to cover the school's energy needs.

### [Solar Technician Training in South Malaita for Asian Development Bank \(2017\)](#)

The ADB contracted Gavin Pereira and Tapera Bird to deliver solar technician training for solar technicians who service PV systems in South Malaita. The technicians received tools, as well as hands-on training to allow them to troubleshoot and diagnose system faults in the systems that they commonly work with. The students also received basic solar manuals to explain the theory and concepts behind solar system design; which allows them to better educate and talk to their customers about how to better look after their PV systems.

## [Design, Supply and Installation of Numerous Off Grid PV Systems for Anglican Church of Melanesia \(2015-2017\)](#)

Superfly has provided numerous PV systems for the Anglican Church of Melanesia (ACOM) which has provided power for their clinics, rest-houses and schools. These systems have utilised Victron Charge controllers and inverters; and Sonnenchein Gel Solar Block batteries. The largest of these systems had a 3kW PV Array, with 24 Volt, 330Amp-hour battery bank; and the smallest was a 600W PV array with a 12-volt, 200Amp-hour battery bank.

ACOM's solar program is coordinated by Mr. Holland Sikou, who is himself an expert in solar energy systems; having received training by APTC in Papua New Guinea, as well as training from Arizona State University. He is able to coordinate the smaller off-grid installations himself through the use of Superfly's installation guides and user guides.

## [Design, Supply and Installation of 3kVA system for Sustainable Resources Management \(2016\)](#)

Superfly installed a 3kVA system for Sustainable Resources Management to power their office in East Guadalcanal. The system is powered by a 3 kilowatt PV array and a 48-volt, 330 Amp-hour Sonnenschen GEL lead acid battery bank. The system also contains a battery monitor to allow the users to monitor battery levels each day.

## [Installation and Back up Servicing of 9 Provincial Government Systems for Ministry of Mines and Energy \(2015-2016\)](#)

Superfly delivered an installation contract from SPREP and UNDP to provide project management, installation and back up servicing for PV systems in 9 Solomon Island provinces to provide power for provincial government buildings.

However, the project was affected by large changes and was entirely re-scoped. Superfly was heavily instrumental in driving the re-scoping of the project; and worked cooperatively with Ministry of Education, Royal Solomon Islands Police Force and Ministry of Health to re-allocate these PV systems to power 5 schools, 3 health clinics and a rural police station across Malaita, East Guadalcanal, West Guadalcanal, Central and Isabel Province.

The system ranged in size from 900 Watts to 1800 watts, and was sized to provide 5 days of autonomy which ensures shallow daily discharge of the batteries; which will lead to long system life. Superfly provide user training post-installation, and system maintenance and troubleshooting support remotely. Each

system utilised Hoppercke (a leading German manufacturer) OPzV Gel Lead Acid batteries which are expected to provide a 10 year design life.

#### [Installation of Off-Grid PV Systems for Ministry of Health Staff Houses \(2016-2017\)](#)

Superfly was awarded the contract to supply and install PV systems for 9 rural staff houses for Ministry of Health. The tender specified industry leading components; and Superfly's bid was 30% cheaper than its nearest competitor, which proved the value for money performance of the company in Solar. The contract is expected to be completed in September. Superfly supplied this contract with Clean Energy Council approved solar panels (Lightway), Victron brand charge controllers and inverters; and Sonnenchein Gel Lead Acid batteries.

#### [System Design for Solomon Islands Government Ministry of Health \(2015\)](#)

Superfly was contracted to provide the above client with system design and equipment specification advice so that they could filter out poor quality solar energy providers. Numerous solar energy projects in the Solomon Islands fail due to poor/non-existent system design, product sizing and component selection. Superfly' report gave Ministry of Health's infrastructure team guidance for future procurement of solar energy systems.

#### [Design, Supply and Installation of Off grid PV systems for Solomon Islands Government Ministry of Health, National Medical Health Stores \(2014\)](#)

Superfly was contracted by Solomon Islands Ministry of Health National Medical Health Stores to provide a sustainable, long-lasting power supply option for its 2<sup>nd</sup> level medical stores in Afio (Small Malaita) and Seghe (Marovo Lagoon)

Superfly provided design, procurement, installation and back up service and maintenance for these projects. Uniquely, the system is sized to provide 5-days of 'zero-sun' energy storage from German made 'Sonnenchein' solar batteries. The solar power for the system is provided by five, 250 Watt Trina solar modules. The system also contains an American-made Midnite solar controller and an Australian made Latronics Inverter.

Back up maintenance and support is also provided within this contract.

### [Lead Trainer for USAID funded VOCTEC Renewable Energy Program \(2012-2014\)](#)

Arizona State University contracted Gavin Pereira to manage the roll-out of its Vocational Training and Education for Clean Energy Program in the Pacific Islands region. The VOCTEC program ran from 2012 to 2014 and successfully embedded industry leading solar training programs into 11 Pacific Island colleges across 10 Pacific Island nations. The project empowered the colleges to train local technicians so that they could render professional service in the design, installation, maintenance and repair of solar energy systems across the Pacific Islands. Gavin assisted with development and drove continuous improvement of the curriculum, as well as delivered 'train the trainer' training for instructors across the 11 colleges.

### [Supply of 800 Barefoot Power Solar Home Systems \(2011-2012\)](#)

As an importer for Barefoot Power, Superfly has provided world-leading sustainable energy solutions for over 800 households in the Solomon Islands. These solar home systems provide basic lighting and mobile phone charging facilities to Solomon Islanders. Barefoot Power is a winner of the Ashden and Lighting Africa awards from the UN.

Please contact us to discuss the requirements of your current or future solar energy needs!