



Product Catalogue

Game Changing Solar Technology

Connector Channel System

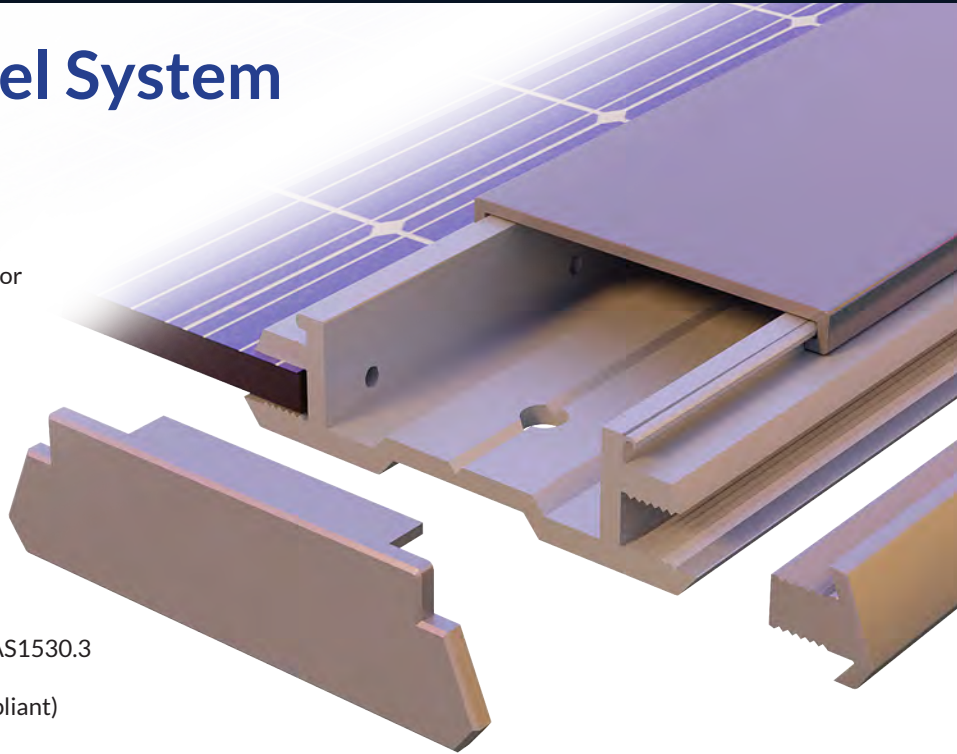
Details - Global "Patent Pending"

The critical component in our 'Integrated Vertical Solar System' Enables the safe and secure vertical installation and electrical interconnection of an unlimited number of PV Solar panels. Specifically for High-rise and Low-Rise Buildings

Specification

Manufactured to our patent specifications and design from high grade marine aluminium.

- Non-combustible.
- Non-corrosive
- 100% recyclable
- 20 Year Material Warranty
- Certified Non-Combustible AS1530.1 and AS1530.3
- Certificate of Conformity
- Warrington Fire Test Standards (NCC Compliant)
- Aluminium AWATA Testing
- Aluminium Material is Compliant to FP1.4 for weatherproofing



Wholesale Cost

- Supplied in One Metre lengths for optimised ease of delivery and handling.
- Aesthetic finish coating will be an additional cost depending on selection of Block Color Metallic Wood grain

*One Metre Lengths	\$200
*Color Finish	\$100
*Total Cost per Metre	\$300

Superbright ECO Power Units

Details

A compact mobile rechargeable Battery Power Unit which stores the renewable Solar Power generated from the 'Integrated Vertical Solar System' Perfectly compatible and suited to Residential Units/Apartments and Business offices.

Specification

The 'Superbright ECO Power Unit' consists of the following Battery and Electronic components.

1. Rechargeable Lithium-ion Battery.
2. Inverter -converts the DC to AC
3. Battery Controller Unit - indicates how much stored power is available.
4. LED control panel
5. USB and AC Plug ports.
6. Four sets of multidirectional wheels for easy mobility.



Wholesale Cost

The cost is variable depending on size of the Storage Battery inside the unit.

* Average Cost \$5000 per unit.

PV Solar Panels



Enphase Micro- inverter

Wholesale Cost

The costs are variable depending on the type and power efficiency required.

Details

Enables the safe and secure vertical installation and electrical interconnection.

Specification

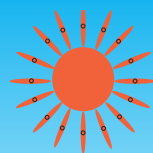
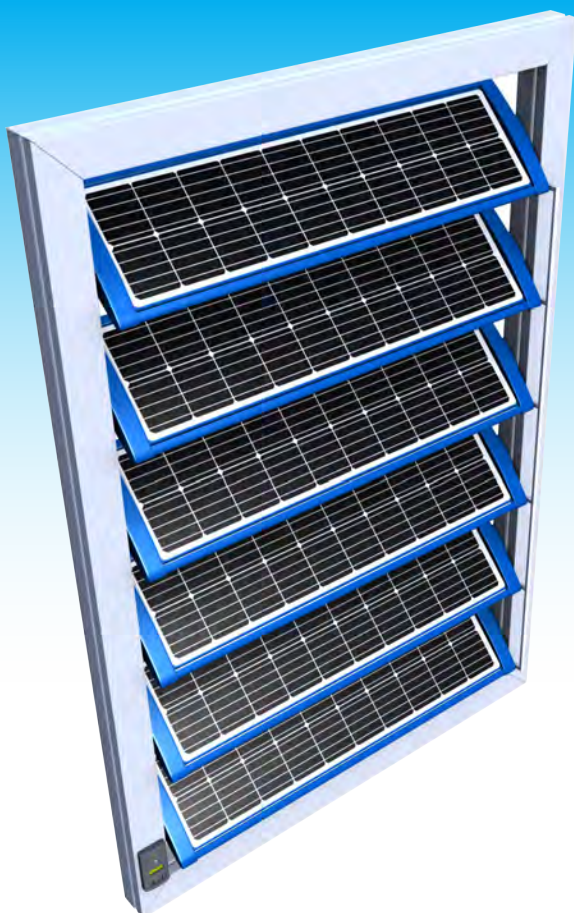
Certified Tier 1 Solar Panels - A solar panel that is made by a manufacturer that has been rated as Tier 1 by a reputable independent PV industry analyst. Tier 1 is the highest/best quality, generally with a 25 year performance warranty.

Enphase Micro-inverters – Each Solar Panel must have its own Enphase Micro- inverter, which is a much safer and more reliable option in terms of AC (Alternate Current) electrical supply from each solar panel.

This safeguards that any electrical faults would only affect the individual solar panel and not cause a total electrical shutdown of all of the solar panels installed. This also safeguards against electrical faults that can potentially cause an electrical fire.

With a DC (Direct Current) Solar Panel electrical system there is a potential fire hazard from the electrical surges, and any electrical fault with one of the solar panels would cause the shutdown of the total solar panel system.

Our 'Integrated Vertical Solar System' features a central weather resistant and waterproof 'Connector Channel' which securely houses the 'Enphase Micro-inverters' connected to each individual Solar Panel.



SOLAR SHUTTERS®

Details

Enables Our Solar Shutters modules can be installed into any vertical window frame either on the outside or inside of the window frame. The Solar Blades can rotate 180 degrees to maximize the direct sunlight exposure or set at a 45-degree angle. The solar blades can also be completely closed to create shade and privacy.

Specification

Manufactured on custom-sized order specifications and minimum order quantity.

Wholesale Cost

Quotation on minimum order requirements.



EV Solar Car Charging Stations

As the world increasingly moves towards electric vehicles, it's becoming more and more important for homes and businesses to have reliable EV charging infrastructure and stand alone 'Electric Vehicle Solar Car Ports' to provide for the increasing demands of limited decentralized recharging stations.

The most common charging station power sources are:

1. Hardwired Connection to the Electric Grid

The most common charging station source is the electric grid. When a charging station is connected to the grid, it draws electricity from the power lines and converts it into the direct current (DC) needed to charge an EV battery.

One advantage of this setup is that it provides a consistent and reliable source of power, which is essential for drivers who need to charge their vehicles on a regular basis, but is also dependent on the main grid connection and power supply.

2. Solar Panels

The second most common power source for charging stations is on-site solar panels.

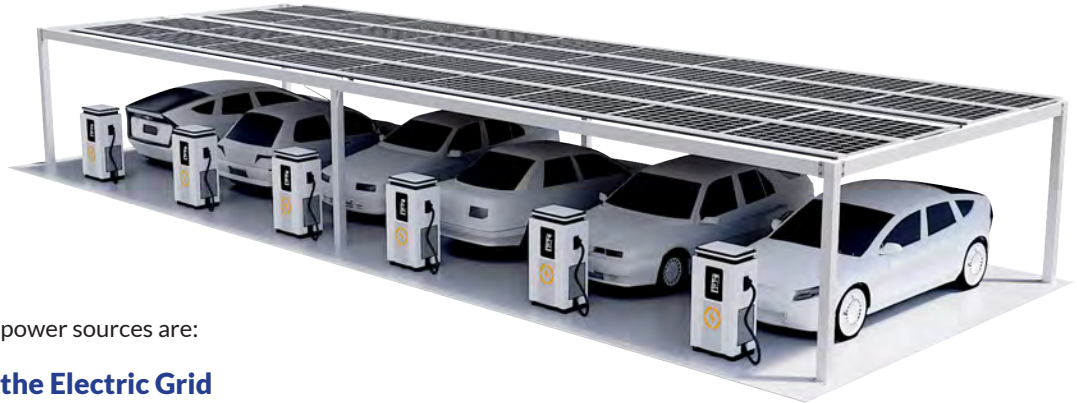
Solar panels provide a renewable energy source that generate electricity from sunlight.

When solar panels are used to power a charging station, the electricity generated is stored in the EV Charging Station batteries and then converted into DC when a driver needs to charge their vehicle.

Solar panels are becoming an increasingly popular option for powering charging stations because they are environmentally friendly and can help save money on main grid utility bills.

The other advantage of using Solar Panels to power the EV Charging Stations is that there is no reliance on the main grid electricity infrastructure, connection and supply.

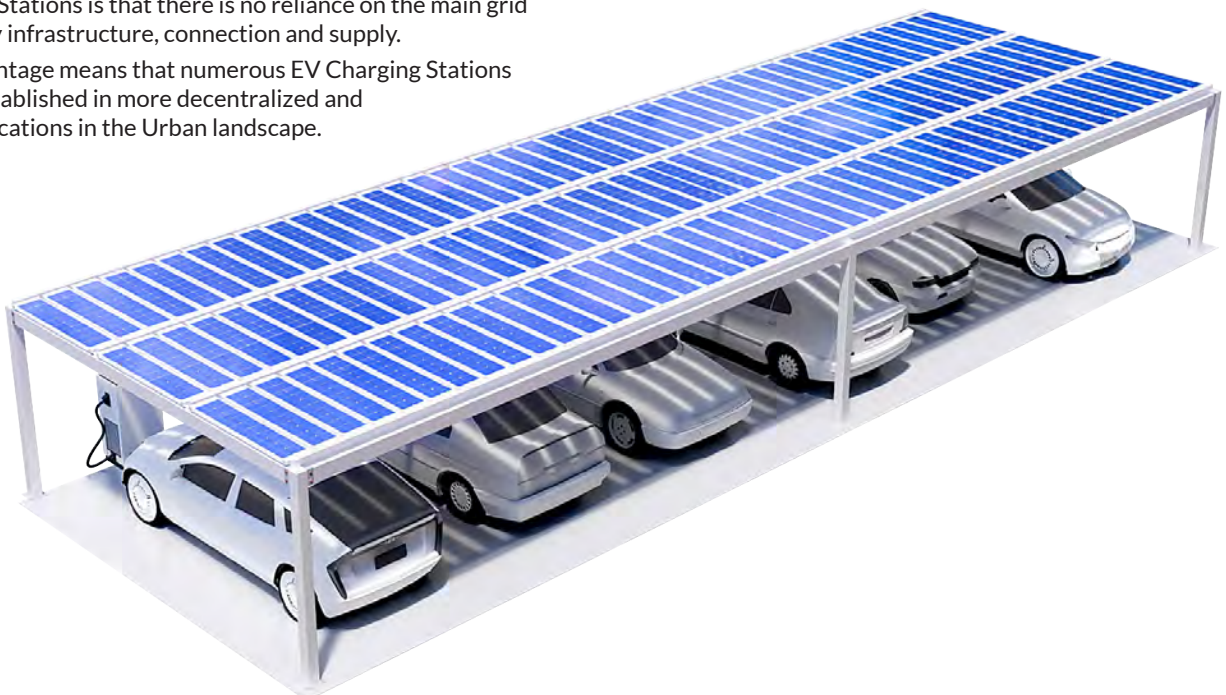
This advantage means that numerous EV Charging Stations can be established in more decentralized and remote locations in the Urban landscape.



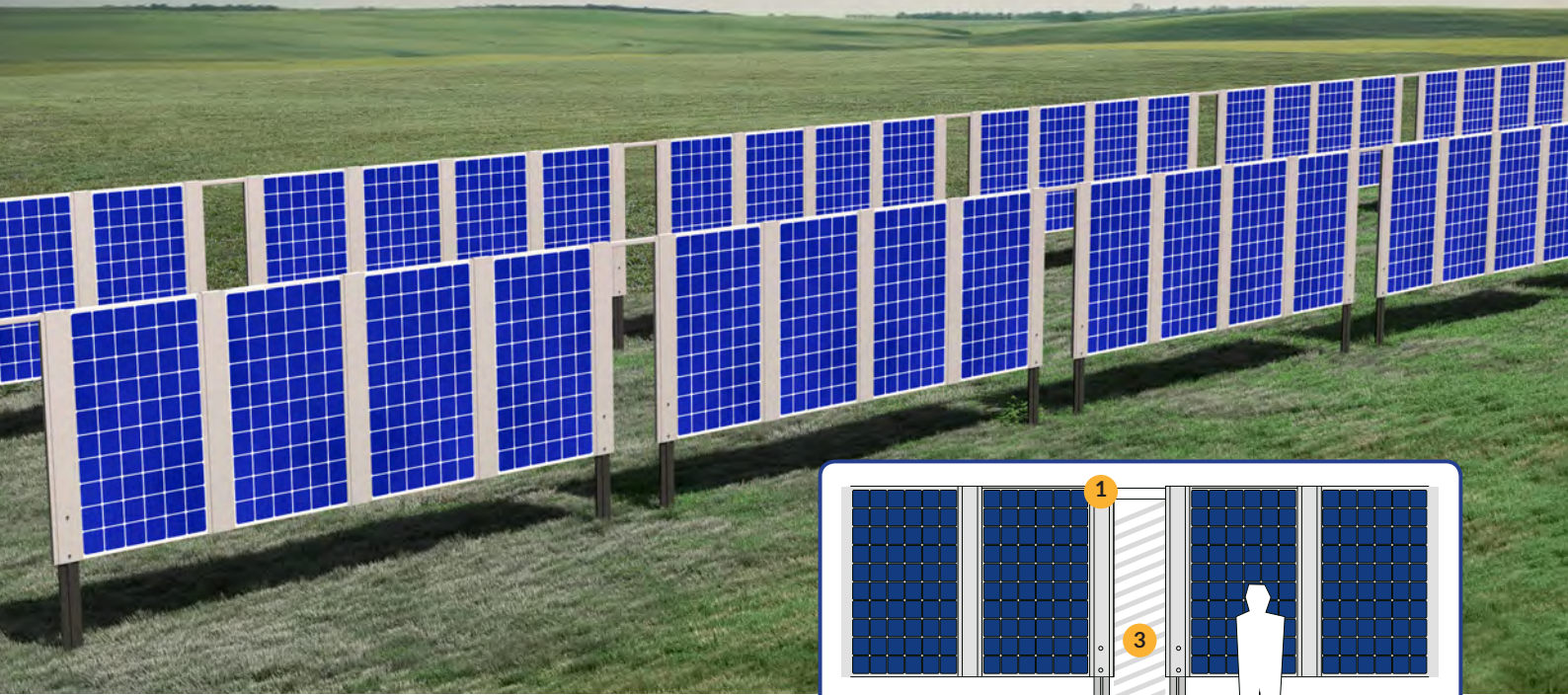
Our EV Solar Car Charging Stations

Features:

- A Stand Alone 'Integrated Solar Car Port' which provides a horizontal roof surface area
- The horizontal roof surface attachment system is constructed from our non-combustible and non-corrosive marine grade aluminium which is also 100% recyclable.
- The roof surface attachment system safely and securely holds and number of certified Tier 1 Solar Panels depending on the size a EV capacity required.
- The Solar Panels each have our Solar Panel 'Enphase Microinverters' integrated into the system, which makes for a safer and more reliable electrical current delivery system.
- The Solar Panels generate solar power during the daytime and this solar power is directed to the lithium-ion battery within the EV Charging Station Unit to recharge the battery without the need for an external Main Grid electricity supply.



Integrated Vertical Solar Fencing



Our 'Integrated Vertical Solar Fencing' system comprises engineered modular components that are manufactured from certified non-combustible and non-corrosive marine grade extruded aluminium, which is also one hundred percent recyclable.

By integrating solar panels vertically, we are maximizing energy capture without compromising valuable ground space in the farming and rural environments, eliminating the large land area typically required for a solar farm installation.

In general, a rough estimate for the land area needed for a solar farm is about 4 to 6 acres per megawatt (MW) of installed capacity. Considering this range, a 5 MW solar farm would require approximately 20 to 30 acres (8 to 12 hectares) of land.

Our system could therefore eliminate the need to locate a dedicated 20 to 30 acres of land and the approximately \$1Million initial setup cost.

By offering alternate installation options for farmers and rural land owners to access and benefit from renewable solar power generation, which cumulatively could represent a significant contribution to the uptake and creation of utility scale solar.

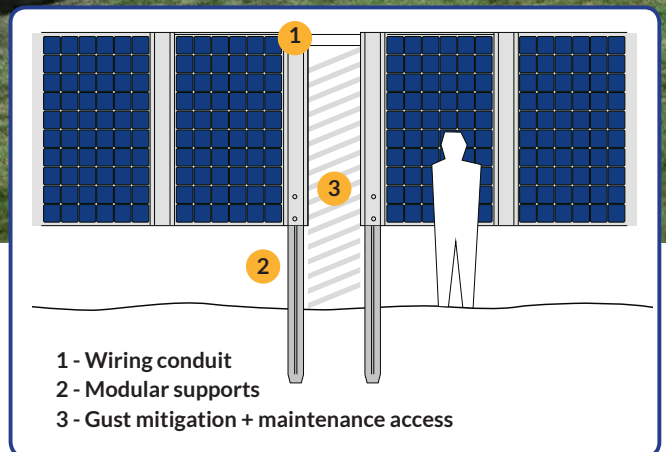
Vertical Solar Panels: Efficiency and Advantages in Energy Generation

The efficiency of vertical solar panels has been supported by a study conducted by German scientists from Leipzig University of Applied Sciences. According to their calculations, by changing the standard tilt angle of solar panels, which is usually between 20 and 35 degrees, to a vertical tilt of 90 degrees, the total energy production can increase by almost 7 times, from 58 to 400 gigawatts per year.

The installation of vertical solar panels presents several significant advantages. Firstly, as they do not require ground anchoring, they are ideal for protected natural areas, sealed landfills, and locations with underground wastewater.

Highlighted benefits of vertical solar panels and their resistance to harsh weather conditions

One of the outstanding aspects of vertical solar panels is that they are bifacial, which means they can generate energy on both sides. Additionally, by orienting themselves from east



to west, they take advantage of the low-production hours of conventional installations, such as mornings and evenings. This is especially beneficial for injecting the produced energy into the grid as it is distributed more evenly throughout the day.

Resistance to harsh weather conditions is another notable characteristic of vertical solar panels. The counterweighted tilt system prevents snow accumulation in areas prone to frequent winter snowfall, ensuring continuous power generation. Furthermore, these structures are designed to be sturdy, minimize material usage and have an attractive design.

Growing demand for vertical solar panels

In recent months, the vertical installation of solar panels has gained popularity due to its superior efficiency compared to traditional installation. Projects like Sunzaun in California have demonstrated their success, where a row of bifacial solar panels not only generates energy but also provides shade and wind protection to vine plants, generating 23 kW of power.

These innovative vertical solar panels also find applications in other contexts. For example, they can be used as road barriers to reduce noise and protect residents living near highways. They have also been proposed as barriers for the railway network. Additionally, there are projects in Europe that integrate solar panels into train tracks, efficiently utilizing the available space.

In conclusion, vertical solar panels provide a revolutionary and efficient alternative to traditional systems. Their ability to generate up to 7 times more energy than conventional solar panels, their weather resistance, and their versatility in different locations make them an attractive option for maximizing solar energy production. While they may have some limitations in terms of initial cost and maintenance, their long-term performance guarantee and positive impact on renewable energy generation make vertical solar panels a promising option for the future.

Integrated Horizontal Solar Ground System

Our 'Integrated Horizontal Solar Ground System' offers an alternative 'Solar Farm' ground-based system which delivers the same results of generating significant amounts of renewable solar power with the advantages of easy and cost-effective deployment and installation.

Our system comprises engineered modular components that are manufactured from certified non-combustible and non-corrosive marine grade extruded aluminium, which is also one hundred percent recyclable.

The modular components effectively inter-connect and fit together to form a safe and secure horizontal canopy above the ground without having to impact on the ground surface area other than at the key vertical anchor points which support the Horizontal canopy.

- The horizontal canopy system safely and securely holds an unlimited number of certified Tier 1 Solar Panels.
- The Solar Panels each have our Solar Panel 'Enphase Microinverters' integrated into the system, which are securely housed in the central 'connector channel' which makes for



a safer and more reliable electrical current delivery system eliminating electric short circuits and potential fire hazards.

- The fact that the Solar Canopy is positioned horizontally, just above the ground, means that the need for a solar tracking system is eliminated.
- This significantly reduces the initial set-up and installation costs. This system also eliminates the need for the installation of a ground mounted system using steel pillars and concrete blocks.

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