

# STATEMENT OF ENVIRONMENTAL EFFECTS

- [Environmental Impact Statement](#)

The Solar PV installation at St Augustine's College 37 – 41 Federal Parade, Brookvale NSW 2100 will comprise of 588 x 395w Solar PV Panels installed over two separate buildings, the old Brimson Hall and the recently renovated Goold Building. Both buildings have been inspected and pre-qualified by Structural Engineering and the site has been approved for installation by the regions Network owner, Ausgrid.

The environmental impact this installation will have is a positive one. The system will offset approximately 335,200 kgs of CO2 carbon emissions per year, which is the equivalent of 25,000kms driven by a vehicle or the planting of a hectare of trees every year. The installation will go ahead according to our company's environmental plan and policy, as well as our waste removal and safety policies. The panels will be mounted flush with the surface of the roof and sit approximately 100mm above the roof's surface. This will ensure that they will not be easily visible from the ground and surrounding properties and will also ensure there will be no glare or reflection from the sun.

The installers will have to abide by the new COVID-19 restrictions and guidelines by having temperature checks before entering daily and adhering to social distancing guidelines with faculty and students. They will operate during normal working hours with weekend work kept to an absolute minimum.

## WASTE MANAGEMENT PLAN

Solahart/Rheem have a strict recycling policy that our installers must abide to. All recyclable materials are to be taken from site and divided into the relevant recycle bins as per our Environmental policy. The Solar Panels come packaged in large cardboard boxes and on a wooden pallet. The cardboard is recycled and the pallet is renewed and used within the business for other deliveries such as our Hot Water and air condition division. Any pallets leftover are sent to a pallet recycling company based locally.

The aluminum framing offcuts are put in our aluminum recycling bins and picked up when needed.

## SHADOW DIAGRAMS

The installation of the solar panels will not cast any shadow as they will be installed flush with the roof profile and will sit a maximum of 100mm above the roof. They will not be installed on a tilt frame in this instance to allow for maximum usage of the available roof space.

## TRAFFIC MANAGEMENT PLAN

No work done on the premise will be disruptive to traffic. Any deliveries to site will be done outside of heavy traffic times of school kids drop offs and pick-ups. The School has an area where large trucks are able to park while being offloaded. Any cranes used onsite will be used within the property and will not disrupt traffic. In the unlikely case that there may be disruption to traffic, then a traffic management contractor will be used and the relevant permits will be organized ahead of time.

## CONSTRUCTION METHEDODOLOGY

The installation of solar panels are done by using pre made parts and framing that is designed specifically for the installation of Solar Panels. All of the materials we use are thoroughly tested and approved by Australian Standards and are also tested on our onsite R&D facilities and passed by R&D engineers.



### Tin interface

The robust aluminium L-feet, which provides a height adjustment of almost 30mm, is designed for corrugated and trimdek type tin roofs. It comes with a Z-Module or Click Module plus bolt preassembled, with a screw which includes bonded sealing washer plus an EPDM rubber pad.

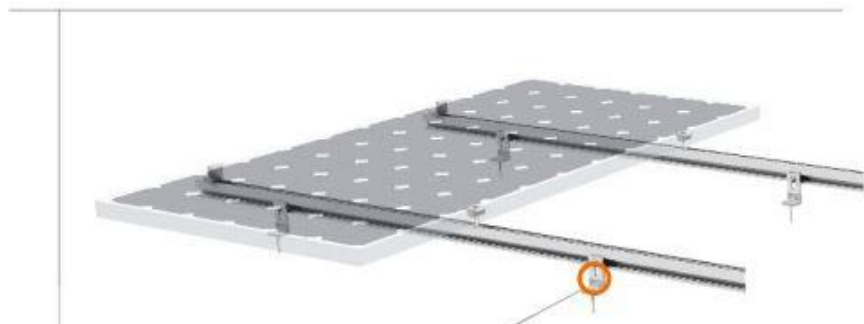


### Universal Clamp

PV-ezRack Universal Clamp, with dual functionality (inter and end clamp), is applicable with most common framed PV modules from 30 mm to 46mm in height. Inbuilt grounding clip is also available.

The first step is to mount the L bracket to the roof purlins. This is done by removing the existing roof screw and replacing it with the screw provided by the racking manufacturer. There is a layer of rubber between the aluminium L bracket and the roof sheet to prevent oxidation of the two dissimilar metals. It also helps to prevent roof leaks.

The next step is to fix the railing to the L brackets. This is done with stainless steel bolts provided in the kit. The final step is to mount the panels on the railing and clamp down with the provided clamps.



## FIRE SAFETY MEASURES SCHEDULE

The installation will have minimal risk of fire. All of the aluminum cutting will be done in an enclosed space with a concrete floor. All of the electrical wiring will be tested before energization to eliminate the risk of faults and sparks. The wiring will be enclosed in a heavy-duty conduit or fixed to a cable tray enclosed with a lid. This will eliminate the risk of anyone being able to touch live cables. The particular system we are installing is manufactured by SolarEdge. They have a unique feature where if the inverters are switched off the panel voltage is reduced to 1v DC. This is done via panel optimisers that are attached to every panel. This reduces the risk of sparks and fatal DC current in the case of a fire or any other situation that may cause the wiring to be exposed and broken.

## SOCIAL IMPACT STATEMENT

The Social impact for this installation is a positive one. The school is doing a great thing for the environment, which will be passed onto the students and the parents of students. From this one installation, it should trigger interest amongst the community and result in more investments into green energy by the wider community.