## Micro Inverters - The latest technology for a safer and quicker install.

Micro Inverter technology is a more recent development that is emerging. Instead of having one large inverter unit inside the dwelling, this system has a micro inverter discretely mounted on the underside of each aluminium encased crystalline solar collection panel.

The energy generated immediately converts to an AC current before it leaves the panel along a 'daisy chain' wiring pattern that runs directly to the distribution board. This eliminates the need for a larger standalone inverter, and because the electrician is not required to deal with DC currents, the connection process is less specialised, safer & quicker to install overall.

# solar pv modules connected in parallel

electricity

grid

micro-inverters

For further information or a free quote please contact your nearest Metalcraft Roofing branch.

Contact us now:

### 0800 341 341 www.metalcraftgroup.co.nz





#### Solar Panels are compatible with all Metalcraft Roofing's longrun and metal tile profiles.

Metalcraft Roofing has more than 50 years experience in the roofing industry which ensures your satisfaction is guaranteed. With 12 branches nationwide we pride ourselves on being New Zealand's largest and most established privately owned building product rollformer and installer with an extensive range of longrun roofing profiles, lightweight metal tiles. metal fencing, rainwater system solutions and a variety of solar generation solutions. We also have a structural steel and insulated panel division.

## Why Choose Solar Power?

## Virtually no maintenance required!

With no moving parts, there is virtually no maintenance required for your system other than cleaning (if required) or ensuring tree growth does not become and obstruction. Most PV Panels carry an output warranty of 25 years and are guaranteed to produce 80% of the rated power output at this time.



- Affordable Sustainable Living
- Protect the Environment
- Reduce your carbon footprint
- Increase your property value
- Save Money! Reduce your power bill
- Get Credited for surplus power you produce
- Fantastic return on investment

Why choose solar power? It has never been more affordable in New Zealand to produce alternate energy for your home or business.

#### What is solar power?

Solar Power or 'Photovoltaic' (PV) converts sunlight into energy. A photovoltaic solar panel (known as a 'PV panel' or 'solar module') soaks up photons from the sun and converts them into an electrical charge.



Systems begin at 1.5kW and will produce around 2100kW a year- that's a guarter of the average household's yearly energy. Your power bill will give you an accurate indication of your yearly kW usage.

Metalcraft Solar will be happy to help you select the right system to suit your power requirements and budget.

System sizes can be designed to provide up to 90% of the typical household's yearly energy!

#### Will a PV system work on my home?

While sunny days produce the best conditions for maximum output of a solar power system, you can still generate substantial amounts of energy on cloudy days. PV solar is actually more efficient in cooler climates.

An on-site inspection by your PV provider will enable your PV System to be carefully positioned - ensuring maximum efficiency and output of your system.

#### Can I take my system with me when I move?

Yes, systems can be dismantled and moved to a new property.

#### **Grid connected systems**

Your power bill can be heavily supplemented by installing a Grid Connect (or "on Grid") Solar PV system on the roof of your home or business.

#### How a grid connected system works

Solar Modules ('PV Panels') are usually mounted on the roof of vour home or business. When sunlight hits the panels, DC power is produced. This power is then sent to a solar inverter which converts the DC electricity to AC power which can then be used by your appliances.



Any surplus electricity your system generates is automatically exported back into to the main electricity grid and can further supplement your electricity bill.

#### Durable, reliable, long life components

Quality brands offer long term warranties on their panels (usually 25 years) and guarantee power output. Inverte warranties range from 5 to 25 years.

#### Protect vourself from power price increases

With residential electricity prices increasing an average of at least 5% per year over the last ten years, you can protect yourself from further predicted increases as you will only be paying for a portion of your power usage.

#### Save monev!

Grid Connect PV Systems can heavily supplement your power bill and are customised to suit your power requirements and budget. PV Systems offer fantastic Return On Investment, meaning...

#### More money in your bank!

#### **Get paid! For Surplus Power!**

All New Zealand power providers offer some form of credit for surplus electricity your PV System exports back into the main electricity grid.

Your PV provider will be happy to recommend what power companies are offering the best rates for customers.



#### Increase your property value

The importance of sustainable living is increasing and energy efficiency is a popular selling point.

A 2011 study carried out in the US found that a Grid Connect PV System increases the resale value of a home, and a home with a Grid Connect PV System is likely to sell twice as fast as a home without one.

**PV Systems produce** environmentally friendly, emission free power.