



## Mackie Electric & Refrigeration Pty Ltd

A.B.N. 33 003 305 048 A.C.N 003 305 048

Phone: 02 6552 2377 Fax: 02 6551 6088

sales@mackiesgroup.com.au

Contractor Licence: EC34900 Refrigerant Trade Licence AU12133

## SOLAR SYSTEMS GUIDE



### Understanding Solar Power

Solar power harnesses the energy of the sun to generate electricity. Even on cloudy days, solar cells can produce electricity. Here's how it works:

1. **Solar Panels:** These panels capture sunlight and convert it into electricity. This electricity starts as direct current (DC).
2. **Inverter:** The DC electricity is converted into household electricity, known as alternating current (AC), by an inverter. This AC electricity can power your home.
3. **Grid Connection:** If your solar system generates more electricity than you use, the surplus is fed back into the mains power grid. You might even receive credits on your electricity bill for this excess energy, thanks to feed-in tariffs.
4. **Nighttime and Grid Usage:** When solar cells aren't producing power, like at night, your electricity comes from the mains power grid as usual. You'll be charged the regular rates for the power used during these times.

### Pricing

Mackies offers a range of solar products carefully selected for performance and efficiency. We're committed to providing the best return on your investment. Our starting price for a 6.6kW Grid Connected system pricing ranges from \$6,000.00 to \$9,650.00 including GST (after STCs).

### Correct Sizing

Choosing the right-sized solar power system is crucial. Our experienced solar consultants can help you determine your energy needs and recommend an appropriately sized system. This ensures you get the most out of your solar investment.

## Other Options: Hybrid Solar Systems

### What is a Hybrid Solar System?

A hybrid solar system combines grid-connected solar panels with battery storage. This allows you to store excess energy generated during the day for use at night and provides backup power during blackouts.

### How a Hybrid System Works

1. **Battery Storage:** Excess energy produced by the solar panels is stored in a battery bank. These batteries typically require minimal maintenance and have a long lifespan.
2. **Nighttime Usage:** The stored energy is used to power your home during the night when solar panels aren't generating electricity.
3. **Backup Power:** During a blackout, you can still access your stored energy, ensuring continuous power supply.

### Cost

Hybrid systems start from approximately \$20,750.00 ranging up to \$24,500.00 depending on your system preferences. Prices quoted include GST fully installed (after STCs).

We offer a range of products and options to suit your needs, including monitoring for system performance and reporting.

