POWER MONITOR
USER GUIDE

INTRODUCTION

The Energy Matters Power Monitor service will inform you how much power (and energy) your solar PV system has generated and how much your household has consumed. The information is presented on the Monitor My System website:

www.energymatters.com.au/monitor_my_system

The hardware supporting the service will be installed by the electrician who installed your solar system, and should operate reliably without any maintenance.

SETUP

The only setup you may have to do is to plug the gateway into a spare Ethernet port on your broadband router. If you don't have a spare port on your router, the simplest and cheapest option is to purchase a ~ $30 Ethernet switch (5 port or 8 port) from an electrical retailer.

Once your solar system and power monitor have been installed, your monitor will connect to the internet and begin uploading data. To complete the setup follow these simple steps:

1. Register for an account at My Energy Matters
2. Wait for the welcome email indicating that your monitor has been activated
3. Log on to Monitor My System to view your solar system

1. REGISTER FOR AN ACCOUNT

Register for an account at:

www.energymatters.com.au/my_energy_matters

2. WAIT FOR WELCOME EMAIL

After Energy Matters has confirmed the flow of data from your monitor we will then link your monitor to your account and send you a welcome email.
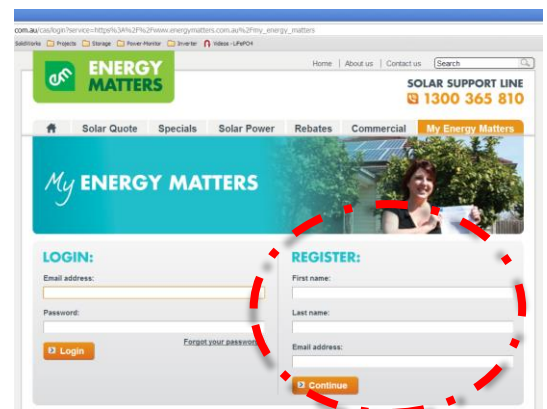

3. LOG ON TO VIEW YOUR SOLAR SYSTEM

Log on to view your system at:

www.energymatters.com.au/monitor_my_system

If you have any questions or need technical assistance, contact us on 1300 365 810 or:

customer-service@energymatters.com.au

USING THE ENERGY MATTERS POWER MONTIOR

The Monitor My System portal allows you to learn more about your solar PV system and your electricity consumption.

GENERATION AND CONSUMPTION

The upper row shows near real time values for solar generation and household consumption. Data is typically uploaded every ten minutes.

The second row shows the cumulative total for the present day, and the average for the last month.

The dial gauges show the percentage of your household consumption which was generated from solar. Note that this is a simple comparison of the total kW·h generated and the total kW·h consumed.

TRACK YOUR USAGE

The "track your usage" chart allows you to examine your generation and consumption profiles in detail, at up to one minute resolution. Careful inspection of the generation profile may allow you to identify shading from trees or the effects of storms or clouds.

The household consumption profile allows you to identify various appliance and loads in your house. In the diagram above the classic square wave pattern of an efficient fridge can be seen, and also what time the occupants got up in the morning.

YOUR SOLAR SYSTEM

SOLAR GENERATION:
Currently generating:
2.01 kW

So far today:	30 day average:
4.6 kW·h	9.9 kW·h

ENERGY CONSUMPTION:
Currently consuming:
0.25 kW

So far today:	30 day average:
2.7 kW·h	10.2 kW·h

CONTRIBUTION FROM SOLAR:

79% Yesterday

97% Last 30 Days

TRACK YOUR USAGE:

| Monitor range: | Daily | Weekly | Yearly |
| Date selection: | Mon, 12 Nov 2012 | | |

ALERTS:
Generation: 0.5 kW·h ☑
Consumption: 15.0 kW·h ☑

ALERTS

The alerts feature allows you to receive an email if the daily generation does not meet a target, or if the household consumption exceeds a target. For example, if you set the generation alert at a low value, e.g. 0.5 kW·h, then you will be informed if the inverter fails or turns off completely.

Correspondingly, if you set the consumption alert at a high value, then you will be informed if your total energy consumption is higher than usual, e.g. an appliance has been left on by mistake.

TROUBLESHOOTING

The monitor is not uploading any data to the portal, the batteries in the transmitters may be flat. The batteries should last 1-2 years and are simple to replace. To replace the batteries, simply remove the transmitter from its Velcro patch, unscrew the battery lid, and replace the two C batteries.

If the monitor drops out repeatedly, contact Energy Matters on 1300 365 810 or:

customer-service@energymatters.com.au
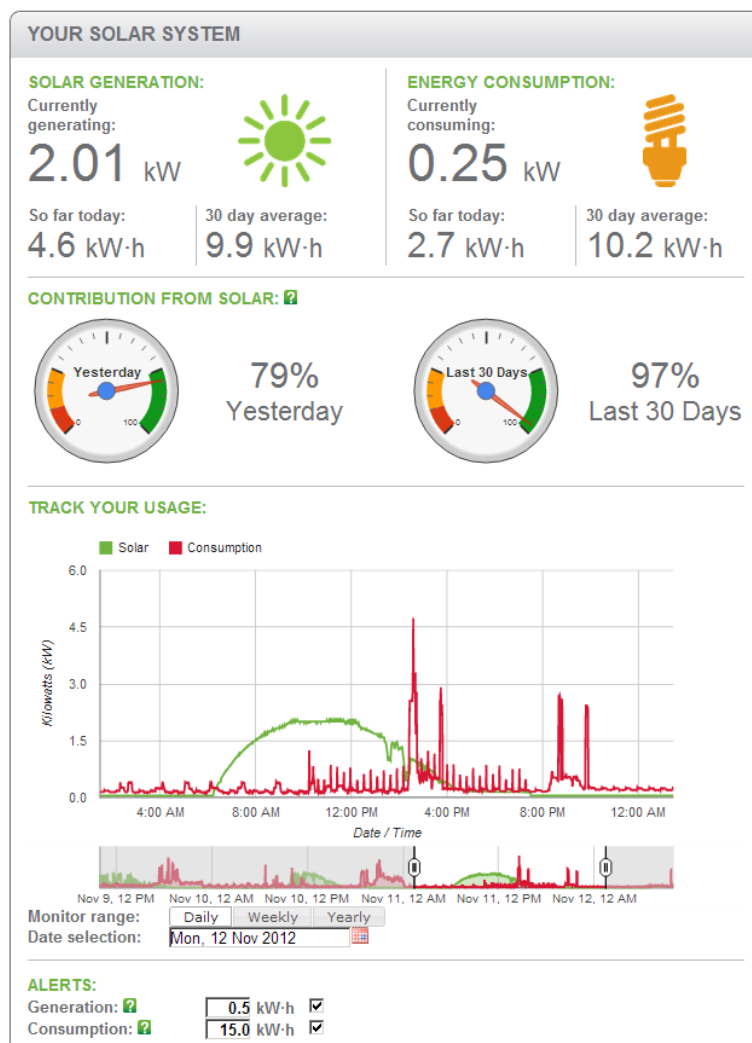
INTERNET CONNECTION

The power monitor uploads the energy generation and consumption data to our secure server on the internet, via your home broadband. If you don't have a spare Ethernet port on your router, the simplest and cheapest option is to purchase a ~ $30 Ethernet switch (5 port or 8 port) from an electrical retailer.

HARDWARE

The EMPower03 power monitor comprises sensors and transmitters that are installed in the switchboard cabinet, or on the wall nearby; and a gateway that is installed in your house next to your router. The gateway has several LED lights showing its status:

- Link: lights up when Ethernet is connected

- Act: lights up when data flows over Ethernet

- Power: lights up when power is supplied

- RF level: indicates the signal strength from the weakest transmitter. It lights up when the signal is strong, flashes when weak, off when no signal

- RF: lights up when data flows over RF from the transmitter to the gateway
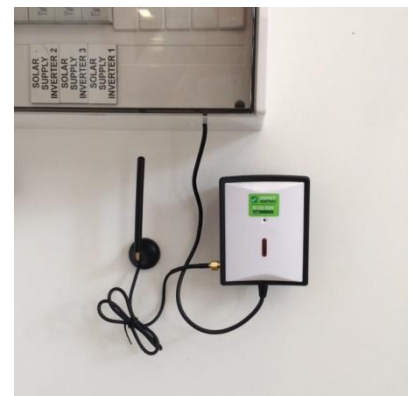
- Serial: not used

Gateway

NEW FEATURES

Energy Matters plans to add new features the portal over time. If you have any requests for features, please do not hesitate to contact us on:

customer-service@energymatters.com.au

Transmitter

Self-adhesive Velcro