



**Century Solar Energy**

## **Grid-connect with batteries Case Study**



### **3.5kW Solar Power Hybrid System**

**14 Canadian Solar 250W Polycrystalline Modules**

**3kW Nedap PowerRouter Single Phase Hybrid Inverter**

**Neuton Power 24V 600Ah Battery Bank**

**Quorrobolong - NSW Australia**

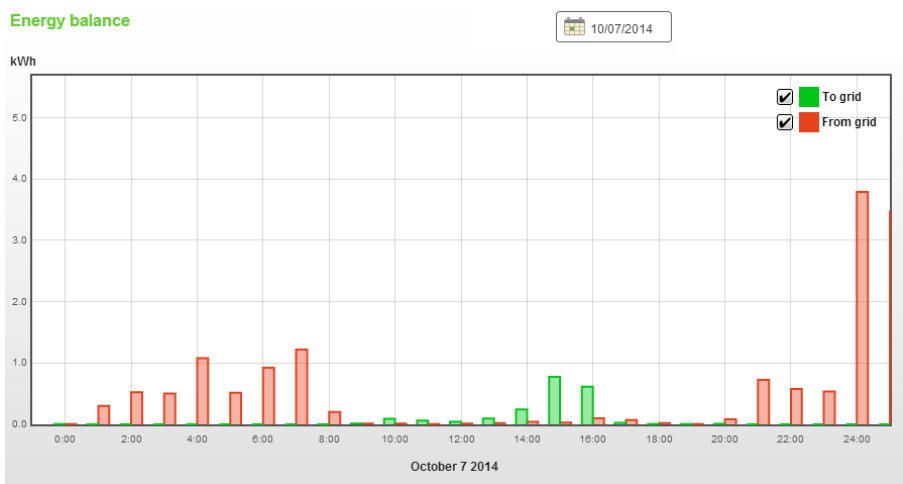
# Project Summary



A 3.5kW system with battery storage installed in a rural suburb in western Newcastle is aimed to reduce the occupant's electricity-dependency of the utility network as well as reducing their electricity costs.

The system works by storing the excess energy generated from the solar panels during the day into the batteries. Once energy demand exceeds generation from the panels, the batteries will automatically start to offset those demands.

At the peak hour rates of as high as \$0.53/kWh (inc. GST) in current electricity market, having a solar power system with batteries will help maximize savings by covering the costs of electricity during that period.



## Location

Quorrobolong NSW

## Project Type

Residential Grid Connect with Batteries

## Project Size

Single-phase 3.5kW with 14.4kWh Batteries

## Module Type

Canadian Solar CS6P-250P

## Inverter Type

Nedap PowerRouter PR30SB-BS

## Battery Type

Neutron Power 24V 600Ah Battery Bank

## Date Installed

September 2014

## Orientation

North East (azimuth 6°, tilt 22°)

## Product Highlights

Outstanding performance at low irradiance

Long term system reliability

25 Year performance warranty insurance

Batteries comes with strong support & proven track record from Australian company YHI Power

All-in-one inverter with intelligent use of energy optimization



High Energy Yield

IP67

Junction Box

PERFORMANCE WARRANTY

25 Years



3 YEAR WARRANTY

nedap PowerRouter

Estimated Yearly Savings<sup>2</sup>

**\$2,000/Annum**

Estimated Yearly Yield<sup>1</sup>

**5.7MWh/Year**

1. Based on a yearly average of 4.7PSH. 2. Based on current electricity market rate





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## **Grid-connect with batteries Case Study**



# **12kW Solar Power Hybrid System**

**48 Hareon Solar 250W Polycrystalline Modules**

**Two 5kW Nedap PowerRouter Single Phase Inverters**

**Neuton Power 24V 600Ah Battery Bank**

**Quorrobolong - NSW Australia**

# Project Summary



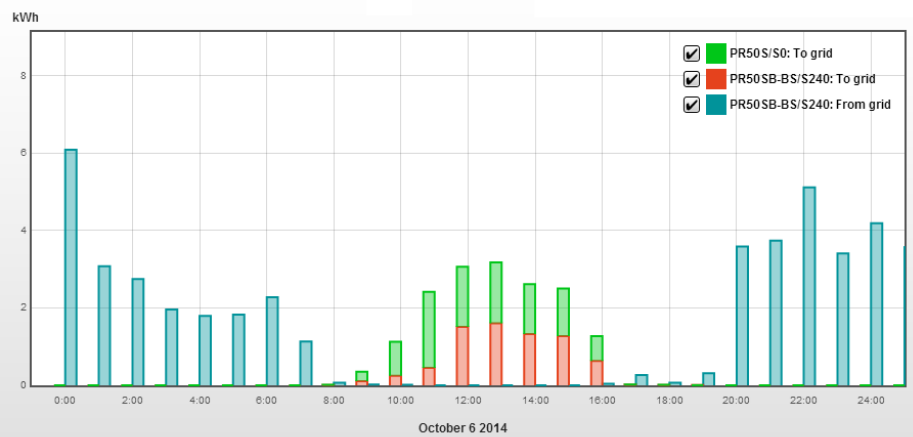
A 12kW system with battery storage installed in a rural suburb in western Newcastle is aimed to reduce the occupant's electricity-dependency of the utility network as well as reducing their electricity costs.

The system works by storing the excess energy generated from the solar panels during the day into the batteries. Once energy demand exceeds generation from the panels, the batteries will automatically start to offset those demands.

At the peak hour rates of as high as \$0.53/kWh (inc. GST) in current electricity market, having a solar power system with batteries will help maximize savings by covering the costs of electricity during that period.

## Energy balance

10/06/2014



## Product Highlights

Outstanding performance at low irradiance

Long term system reliability

25 Year performance warranty insurance

Batteries comes with strong support & proven track record from Australian company YHI Power

All-in-one inverter with intelligent use of energy optimization



High Energy Yield

IP67

Junction Box

PERFORMANCE WARRANTY

25 Years



3 YEAR WARRANTY

**nedap PowerRouter**

Estimated Yearly Savings<sup>2</sup>

**\$6,300/Annum**

Estimated Yearly Yield<sup>1</sup>

**19.6MWh/Year**

1. Based on a yearly average of 4.7PSH. 2. Based on current electricity market rate



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