



QUANTUMNRG LAB

Pennant Hills, NSW

Grid connect solar and battery solution

Commissioned Q1 2021

THE LAB

As regional businesses transition to renewable energy solutions, it is clear that a variety of technologies will be in the mix.

In Q1 2021 QuantumNRG selected a small number of emerging technologies to put them through their paces in a real-life environment.

In Q2 2023 energy trading and battery optimisation hardware and software were added to explore their potential benefits.

Here are some of the results.

TECHNOLOGIES

Core technology evaluation:

- 32 x solar panels MWT
- Enphase IQ7A micros
- 20 kWh Redflow Batteries
- Full reporting (grid/system)
- 315-litre Sanden heat pump

Added Q2 2023:

- NED battery optimisation
- Spot market retailer contract

BUDGET

Projects expenditure to date: \$65k (ex GST)

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RESULTS

Lifetime Solar



Lifetime Battery #1

Lifetime Discharge Energy 6984 kWh

Lifetime Battery #2

Lifetime Discharge Energy 7104 kWh

Hot water from renewable energy = >95% (est)

Faults = 0



Heat pump



Reporting system

"QuantumNRG has been delighted with the first 2.5 years of operation. The lab has generated and sold more energy than it has consumed." Aidan Moore, Director.