NSW Home Solar Battery Guide

Practical example: Isabella

Isabella wants to find simple ways to reduce her energy bill.

Profile

Name: Isabella

Location: Rural town

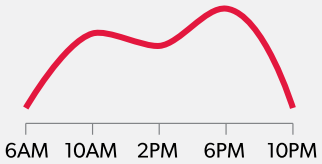
House type: 3 bedroom

Occupants: 2 adults

Tariff: Time of use

Existing solar: 2 kW

Daily electricity usage profile:



Daily average: 10 kWh

Annual total: 3,650 kWh

Overview

Isabella and her husband are retired and want to cut back on their expenses. Solar covers a lot of their daytime energy usage, but as a small household they export power to the grid. Her retailer recently reduced its solar feed-in tariff offer so she is considering installing a battery to reduce her bills.

Isabella spoke with a salesperson who suggested a 3 kWh battery with a battery inverter for $6,500, with an estimated saving of $330 per year. This would mean the system would pay back its cost over 20 years. The payback period is longer than the warranty period and Isabella realised this doesn't make economic sense.

While she was searching for information about batteries, she learnt that simple energy efficiency measures can create quicker savings. Isabella had an energy audit done which identified the most cost-effective energy efficiency measures for her circumstances.

What did Isabella decide?

Solar: No additional solar.

Battery: No battery because payback is too long.

Energy efficiency: Isabella improved her home's energy efficiency by installing draught proofing, LED lights and an upgraded high-efficiency hot-water heater. She also got an energy management system to maximise her solar self-consumption.

Summary

Payback period (for energy efficiency measures): 5 years

System cost: $2,800

Annual savings: $520

Assumptions and notes:

- The cost estimates for energy efficiency actions are indicative.
- Estimated savings from her household's energy efficiency measures were taken from the Sustainability Victoria Households report.
- Energy-price projections based on data from the Australian Energy Regulator State of the Market 2017 report.

Takeaways

1. Investigate other ways to save money and energy before looking at batteries, especially if the battery payback period is longer than the warranty period.
2. Energy efficiency measures are often better value than batteries.

For more information, download the NSW Home Solar Battery Guide: energysaver.nsw.gov.au/solar-battery-systems