

# SUCCESS STORY



## Upgrade of an off-grid, hybrid system Waitomo, New Zealand



## Converting an existing off-grid system at the end of life to a brand new one

### Challenge

- Existing power supply system too small to cover new owner's needs
- Non compliant, DIY type installation
- Batteries nearing end of lifecycle
- Too much noise, pollution and cost related to a generator running very frequently
- Frequent system failures

### Key facts

- Customer:** Private residence and Fine Furniture & Interior Fittings design office.
- Project:** An off-grid system improvement
- Location:** Waitomo, New Zealand
- Size:** 3100 W peak power
- Commissioned:** June 2017
- Design & supply:** Independent Power



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## Solution

- Installation of new, and much larger, PV array
- System design based on OutBack Power equipment
- High quality battery bank replacing old batteries
- Integration of existing wind turbine into the new system

## Outcome

- Significant improvement of new owner's quality of life
- Abundant power available throughout the day from PV modules and at night from wind turbine, now with increased energy storage ensuring power during spells of little or no sun and wind
- No electricity bills
- High reliability of power supply

## Before



## After



“I have spent quite a lot of time researching into how to approach our off-grid power system upgrade. I knew it wouldn't be a straight-forward job as I really wanted to integrate it with our existing wind turbine and take advantage of the wind and sun complementing each other. I contacted quite a few companies and only Independent Power provided the level of professionalism I expected. They were not only very helpful and knowledgeable, but at the same time they used their “know how” to optimise the design in such a way that it brought down the cost of the system significantly. This resulted in serious savings for us. I sincerely recommend Independent Power to anyone interested in installing a renewable energy system on their property.” The Peace of mind having a reliable system is priceless.

Chris Guy & James Cavanagh - Residents  
([www.athenaeum.co.nz](http://www.athenaeum.co.nz))

