

# Single Phase Battery Storage CASE STUDY

In Partnership with  
**Self Gen Connect Ltd**

**Revitalising** a 17th-Century Home with Renewable Energy and Battery Storage

## Overview

Mr. Couldrey owns a large 17th-century farmhouse with an annual energy usage of 25,000 kWh. Without access to gas, the household is solely reliant on electricity as a source of energy. In an effort to improve his property's energy efficiency and reduce costs, he had previously installed two solar PV systems:

1. **A 4kW solar array** under the Feed-in Tariff (FIT) scheme.
2. **A second 10kW solar array** installed on the barn.

Unfortunately, the second installation proved problematic. The previous installer failed to secure DNO approval, leaving the system incomplete and non-compliant.

Frustrated by this situation, Mr. Couldrey reached out to Self Gen Connect for a solution, particularly seeking the addition of a battery storage system.



## Solutions

After thoroughly assessing the property's energy needs and **possible** system configurations, Self Gen Connect, **having compared several different options**, proposed a strategic plan to rectify past issues and optimise energy efficiency.

1. Removed the **unapproved 10kW** inverters installed by the previous company to ensure compliance and safety
2. Initiated a rigorous application process with the DNO and successfully obtained approval for **16kW of generation capacity**.
3. Installed a system consists of eight 9.4kWh Hanchu batteries and a combiner box, alongside a LuxPower hybrid inverter. The system was designed to work seamlessly with the **Octopus Intelligent Tariff**, allowing Mr. Couldrey to optimise his energy usage and reduce costs effectively.

“ Living in a remote house in the country without gas, we use huge amounts of electricity. Solar panels helped a bit, but much of the electricity was generated at times when we didn't need it. Hanchu batteries solved that problem. I can now capture the surplus energy for reuse at times we need it. Even better, we charge up the batteries overnight when the cost of electricity is lower. We have reduced our bills enormously!

- Mr. Couldrey

## Products Installed

- [LuxPower Single Phase Hybrid Inverter 12kW](#)
- [Greenlinx DC4 Combiner Box](#)
- [8 x Hanchu 9.4kWh Low Voltage Batteries](#)