



# Low Carbon Technology Guide

## Battery storage

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# 1. What is it?

Battery storage (also referred to as solar battery storage) is a type of energy storage that allows you to store electricity that can be used later when needed. It is commonly used as a backup for electricity produced by renewable generation technologies like solar PV and wind turbines, which are not always readily available (e.g. when the wind isn't blowing or the sun isn't shining). The battery storage would, for example, allow you to store excess electricity generated on a sunny day and use it when you need to power the appliances and lighting in your home on cloudier days and at night.

Battery storage is also useful if you decide to switch to a time of use tariff for your electricity supply. With a time of use tariff, electricity prices change throughout the day depending on the overall demand on the grid. The battery storage can be charged from the grid when electricity is cheap to be used later when electricity becomes more expensive.

# 2. What should be considered before installation?

Even if you have renewable generation technology such as solar PV installed in your home, you need to consider whether it generates enough excess electricity to be stored in the battery during the day. Some households with high electricity consumption during the day and low power solar PV may not see sufficient financial benefits from the installation of the battery storage.

### **3. How much does it cost?**

The cost of installing battery storage varies, and according to Which? (consumer organisation) could cost from £2,500 to over £10,000. The cost would depend on the capacity of the system, manufacturer and difficulty of installation. It is generally recommended to get quotes from at least three installers to get a good idea of how much the system would cost you.

### **4. What is the maintenance like?**

Once installed, the battery storages require little maintenance and have an average lifespan of around 10 years (depending on how it is used). This is relatively short, considering solar PV installations, for example, could last over 25 years if properly maintained. Therefore, if you are considering installing solar PV and battery storage together, you must factor in that the battery would likely need to be replaced at least once in the 25-year expected lifespan of the solar PV system.

### **5. How can I get it?**

Battery storage systems require technical knowledge to be installed properly and should only be carried out by a qualified installer. You can find installers in your area by using the following link: [Green Business Watch](#).

Once you have selected an installer, you should verify that they are signed up to the Renewable Energy Consumer Code (RECC).

Being a member of RECC means that the installer is certified as providing a high standard of customer service. You can verify if the installer is a member using the following link: [Renewable Energy Consumer Code](#).

Finally, some energy suppliers offer battery storage installations to their customers. You can try contacting your supplier or visiting their website to see if they can help.<sup>6</sup>  
What funding help is available?

## 6. What funding help is available?

### 6.1 HOME ENERGY SCOTLAND LOAN

If you live in Scotland and considering a battery storage for your property, you could be eligible for an interest-free [Home Energy Scotland Loan](#) of up to £6,000.

### 6.2 ADDITIONAL FUNDING INFORMATION

Depending on where you live, below are some organisations that can advise you on the funding options that could be available to you.

**England and Wales:** [Simple Energy Advice](#)

**Scotland:** [Home Energy Scotland](#)

## 7. Useful websites

For more information on the battery storage systems, please visit the following websites:

[Which? Guide](#)

[Energy Saving Trust – Storing energy](#)

[Energy Saving Trust – Is home energy storage right for me?](#)