ENERGY ADVICE TEAM

Independent. Honest. On Your Side.

BATTERY SIZING GUIDE

How Much Battery Storage Do You Really Need?

WELCOME

A Message From Lisa

Thank you for downloading this guide.

One of the most common questions I am asked is: "How much battery storage do I need?" The answer is rarely straightforward. Many homeowners are recommended batteries that are either too small, too large, or simply not suited to how they use electricity.

This guide will help you understand the factors that should be considered before investing in battery storage.

My aim is not to tell you what battery to buy. Instead, I want to help you understand what size battery may be appropriate for your home and avoid some common mistakes.

Let's get started.

"The best battery is not necessarily the biggest battery. It is the battery that matches how your household actually uses electricity."

WHAT DOES A BATTERY ACTUALLY DO?

A battery stores electricity so that it can be used when you need it most. Rather than exporting excess solar energy back to the grid during the day, a battery allows you to save that electricity for use later in the evening or overnight.

Modern battery systems can also be charged using cheaper off peak electricity tariffs, helping to reduce energy costs throughout the year.

01

Store Excess Solar Energy

Any electricity generated by your solar panels that is not immediately used can be stored in the battery rather than exported to the grid. This stored energy can then be used later when the sun is no longer shining.

02

Charge From Cheap Overnight Tariffs

Many battery systems can be programmed to charge overnight when electricity prices are at their lowest. This stored energy can then be used during the day, helping to reduce your reliance on more expensive peak rate electricity.

03

Reduce Electricity Bought From The Grid

By using stored energy from your battery, you can reduce the amount of electricity you need to purchase from your supplier. This can lead to lower energy bills and greater energy independence.

Lisa's Tip - ***"Many homeowners believe batteries only work well alongside solar panels. In reality, a battery can still help reduce your electricity costs by taking advantage of cheaper overnight tariffs, even during the winter months when solar generation is lower."***

BIGGER IS NOT ALWAYS BETTER

When it comes to battery storage, many homeowners assume that the largest battery available will provide the greatest savings. In reality, an oversized battery may take longer to pay for itself if it is rarely fully charged or discharged. The goal is not to buy the biggest battery you can afford, but to choose a battery that matches your household's energy usage and future plans. Several factors should be considered before deciding what size battery is right for your home.

01

Annual Usage Matters

A household using 3,000 kWh per year has very different energy requirements from one using 10,000 kWh. Generally speaking, the more electricity your home consumes, the more battery storage you may benefit from. However, annual usage is only part of the picture and should always be considered alongside your daily usage patterns.

02

When You Use Electricity Matters

Two households can use exactly the same amount of electricity each year yet require very different battery capacities. Homeowners who are out during the day and use most of their electricity in the evening often benefit from larger battery storage, whereas those who are home throughout the day may be able to use solar energy as it is generated and therefore require less storage capacity.

03

Future Plans Matter

If you are planning to add an electric vehicle, heat pump, hot tub or other high energy appliance in the future, this should be taken into account when sizing your battery. Choosing a system that can be expanded later may provide greater flexibility and help avoid the cost of replacing or upgrading your battery as your energy needs change.

Lisa's Tip - "I regularly see homeowners being sold the largest battery available. Bigger is not always better and it is not always the fastest route to savings."

WINTER VS SUMMER

One of the biggest misconceptions regarding battery storage is that it performs the same way throughout the year. In reality, solar generation can vary significantly between summer and winter, which can have a major impact on how your battery is used. Understanding these seasonal differences will help you set realistic expectations and get the most from your system.

01

Summer

During the summer months, solar panels often generate more electricity than your home can immediately use. This excess energy is typically stored in your battery, allowing you to power your home long after the sun has gone down.

02

Winter

Solar generation falls considerably during the winter months due to shorter days and lower sun angles. As a result, there is often less surplus solar energy available to charge your battery fully.

03

Why Batteries Still Work In Winter

Many homeowners charge their batteries overnight using cheaper off peak electricity tariffs. The stored energy can then be used during the day, helping to reduce electricity costs even when solar generation is limited.

Lisa's Tip - ***"For many households, winter battery savings come from cheap overnight charging rather than solar generation. A well configured battery can still deliver excellent value even during the darker months of the year."***

TYPICAL BATTERY SIZES

Annual Electricity Usage	Typical Battery Size
Up to 3,000 kWh	5 to 10 kWh
3,000 to 6,000 kWh	10 to 15 kWh
6,000 to 10,000 kWh	15 to 25 kWh
10,000+ kWh	20 kWh+

These figures are intended as a guide only. Every home is different and factors such as occupancy, lifestyle, tariff choice and future energy requirements should also be considered before making a decision.

"Do not choose a battery based solely on annual usage. How and when you use electricity is often just as important as how much you use."

COMMON BATTERY SIZING MISTAKES

01

Buying The Largest Battery Available

More storage does not automatically mean greater savings. A battery that is too large for your household's needs may rarely be fully utilised, which can extend the payback period and reduce overall value. aggressive or manipulative sales tactics.

02

Ignoring Usage Patterns

Understanding when you use electricity is often more important than how much you use. Two households with identical annual consumption may require very different battery sizes depending on whether most of their electricity is used during the day or in the evening.

03

Not Planning For Future Needs

Future additions such as electric vehicles or heat pumps can significantly increase electricity demand. Planning ahead can help ensure your battery remains suitable for years to come.

04

Comparing Price Instead Of Value

The cheapest battery is not always the most cost effective over its lifetime. Factors such as warranty length, efficiency, cycle life and manufacturer support can have a significant impact on long term performance and value.

05

Ignoring Tariff Opportunities

A battery's performance can be heavily influenced by the tariff it operates on. Access to low cost overnight electricity can often improve savings and shorten payback periods, particularly during the winter months. urgency to close a

06

Assuming Every Home Needs A Battery

Not every property will benefit equally from battery storage. In some situations, the expected savings may be modest and it is important to assess whether a battery is financially worthwhile before investing.

Lisa's Tip - ***"The question should not be 'How big a battery can I afford?' The question should be 'What battery size best suits my home and my lifestyle?'"***

Need An Independent Opinion?

Many homeowners contact Energy Advice Team because they are unsure whether battery storage is right for them or if the size being recommended is appropriate.

We can help you understand:

- Whether a battery is suitable for your home
- What size battery may be appropriate
- Whether projected savings appear realistic
- How electricity tariffs can affect performance
- Whether the system represents good value for money

"Overwhelmed by conflicting advice? Send me your quotations and I will happily explain the differences in plain English."

"No jargon. No pressure. No obligation."

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0800 001 6402
info@energyadviceteam.co.uk
www.energyadviceteam.co.uk

Lisa's Tip - ***"Battery storage can be an excellent investment, but only when it is properly matched to your home and your energy usage."***