



CDMS
• SUSSEX LTD •

SUSTAINABLE
HOME
GUIDE

A guide to sustainable living, eco-friendly practices and energy-efficient solutions for your home.

Contents



- 01.* Introduction
- 02.* How to ensure your home is energy-efficient
- 03.* How small improvements can make a big difference
- 04.* How high-tech can future-proof your home
- 05.* How you can help the environment
- 06.* How we can help you

Introduction

There are many ways of making make the most of your home in an energy-efficient and sustainable manner that not only benefits your bank balance, but the environment too.

Cutting-edge designs and the latest high-tech devices are the routes to running a smarter home that can cut costs while reducing your carbon footprint.

We have used our expertise in this field to put together this guide detailing the range of options that can help you achieve this. If you are looking for advice or have further questions, our team are on-hand to offer you help and guidance. Get in touch using the information below.

T. 01444 848278

E. info@cdmssussex.co.uk

How to ensure your home is energy efficient

This is one of the most important areas to get right and the benefits of doing so are three-fold, benefiting householders, your finances and the planet. Prime energy efficiency is not necessarily about making extravagant and expensive changes, but smaller alterations that could make all the difference.

The key is to identifying the areas in your home that need attention. Sorting them out won't just make day-to-day living more comfortable but could save you a significant amount of money on energy bills while at the same time, reducing your all-important carbon footprint.



Insulation

This is one of the most effective ways to keep your home warm and there are three main areas to consider:

- Wall insulation – uninsulated walls can account for around 35% heat loss, but solid or cavity wall insulation can help to save up to £160 a year on heating bills.
- Loft insulation – as heat rises, this can be where most of it escapes, but proper loft insulation can save around £130 a year.
- Floor insulation – investing in good quality floor insulation can reduce heat loss and help to keep your feet toasty.
- Address any damp issues in your home, as dampness can increase heat loss and reduce energy efficiency.
- Proper damp proofing measures may include installing damp-proof membranes or improving ventilation.
- Chimney sheep are a clever solution to prevent heat loss through the chimney, while insulating pipes and performing full system radiator cleans can also improve heating efficiency.
- Thermal efficient curtains add another layer of insulation to windows, further reducing heat loss and enhancing energy efficiency.



Draught-proofing doors and windows

Even the most energy-efficient doors and windows require regular maintenance to perform at their best and while draught excluders are a quick and cost-effective solution, there are a host of other ways to stop heat escaping.

- Weather-stripping, which involves sealing gaps around the door frame thus preventing drafts and water ingress.
- Door sweeps attached to the bottom of a door which help stop cold air from entering.
- High quality door materials such as solid wood, fibreglass or steel that are better at maintaining a property's thermal efficiency rather than hollow or poor quality doors.
- Regular maintenance is key as even the most energy-efficient doors and windows need a little care attention every now and then for the best performance.
- Check habitually for cracks and gaps, bearing in mind that the sealing around doors and windows can deteriorate, and replace any worn out weatherstripping or sealant.
- Clean frames and glass to remove dust and grime that can sometimes affect the mechanisms and lead to tiny gaps.
- Consider upgrading inefficient doors and windows, including replacing glazing if necessary.

Guttering

Regularly clean gutters to prevent them from becoming clogged with debris, which can lead to water damage and adversely affect the property's energy efficiency.



Choosing a boiler

Having a good boiler is crucial because these invariably serve as the central hub of a heating system, supplying hot water and ensuring radiators distribute warmth evenly throughout the property.

A reliable and efficient boiler can make all the difference when it comes to your home's comfort levels and energy costs during winter.

Beware of old inefficient models, especially those operating below 70% efficiency, that can add hundreds of pounds to your annual energy bills. They are also more prone to breaking down, often needing frequent repairs, and, as they produce more carbon emissions, have more of a negative impact on the environment.

Modern boilers have the latest technologies that makes them more efficient and reduces their carbon footprint.

- Condensing boilers capture heat from exhaust gases, stopping it from escaping and recycling it back into the heating system, improving efficiency by up to 12%.
- Modulating burners adjust burner output based on heating demand, ensuring the boiler uses only the energy it needs, therefore reducing waste.
- Programmable thermostats and smart control systems allow you to set heating schedules and even control your heating remotely, guaranteeing you only use energy when needed.



Hot water cylinder and system maintenance

Ensure proper maintenance of your hot water cylinder and heating system. Regular servicing by a qualified professional can help prolong the lifespan of your boiler and maintain its efficiency. Consider upgrading to a newer system if your current one is outdated or inefficient.



Renewable energy solutions

These are becoming an increasingly popular way for householders to generate their own renewable electricity from the sun's energy. Cutting electricity bills, reducing their carbon footprint, and earning money from selling energy back to the National Grid.

- Solar panels are often installed in groups of 10 – taking up around 20 square metres of roof space. Each panel generates approximately 355W of energy in strong sunlight. They still work on cloudy days, though the stronger the sunshine, the more electricity is generated.
- Panels generate direct current electricity, but as power used for household appliances is alternating current, an inverter needs to be installed, which means the electricity can be used in the home or exported to the National Grid.
- Solar panels work best on south-facing roofs with unobstructed sunshine. Those facing east or west can also be used, but are estimated to produce between 15 and 20 per cent less energy. North-facing roofs are not recommended.
- If roofs are overshadowed, some solar panel systems can minimise the impact of shading by using optimisers.
- Consider installing solar hot water systems to heat your hot water tank using solar energy. These systems can further reduce your reliance on non-renewable energy sources.
- Implement eco-friendly water fixtures such as low-flow toilets and showers to reduce water consumption and minimize environmental impact.
- Completely changing your radiator system to a more energy-efficient model can enhance the overall efficiency of your heating system.

! *Keep in mind that making significant changes to listed buildings, including installing solar panels or altering heating systems, may require planning permission. Consult local authorities and adhere to regulations and guidelines for listed buildings.*



How small improvements can make a big difference

You don't need to make grand sweeping changes to be effective because even minimal adjustments can significantly improve the comfort and efficiency of your home, especially during the cooler months.

Here are some small changes you can make that will have an immediate impact:

Thermostatic radiator valves (trvs)

- These are generally easy to install, making them a low-effort change that will have a high impact.
- Putting these on radiators allows you to control the temperature of individual rooms rather than heating the entire property at the same level.
- By adjusting the heat based on usage, TRVs can bring energy savings. After all, why would you want to heat a guest room at the same level as a living room that's in constant use?
- They also enable you to customise your living environment to suit your personal requirements, perhaps having a warmer kitchen but a cooler bedroom.



Smart thermostats

These are a popular way to manage heating in your home, offering several ways to make it more efficient and comfortable.

- Learning algorithms: many smart thermostats can “learn” your habits and auto-adjust settings to when you are usually home, awake or asleep – ensuring you use energy only when necessary.
- Remote control: smart thermostats allow you to adjust your home’s temperature via your smartphone, wherever you are.
- Energy reports: they often generate usage reports so you can understand your energy usage and make informed decisions on how to alter it.
- Working as a team: many smart thermostats can be integrated with smart devices such as voice-activated assistants, helping to create a seamless, intelligent home environment.

How high-tech can future-proof your home

Incorporating the latest technology into your home is not just a passing fad, it's a way of harnessing the benefits it brings through greater automation, increased efficiencies, and additional security.

Smart devices can transform the way you live, enabling you to control everything from lighting and heating to security and entertainment systems with minimal effort, but it doesn't mean you sacrifice the charm and character of your home.

Such technology is all about enhancing it and making it work smarter, not harder, which helps to improve your quality of life.





Internet and wifi

The first and most basic step is choosing the best internet package to suit your needs, bearing in mind the three most important components: speed, reliability, and coverage. Make sure it matches your internet usage habits and check that your internet service provider (ISP) has a proven track record of providing a stable service. Ensure the Wifi signal covers the entire house and there are no blackspots.



Smart home devices

Among the most popular are Google Home and Amazon Echo which can control several other smart devices around your home whether you want them to play music, answer questions or even make phone calls. They can also provide a seamless user experience by linking with other home automation appliances.



Home security

This is two-fold with smart surveillance cameras such as Nest Cam or Ring Video Doorbell providing real-time video footage of your home directly to your smartphone, while smart locks such as August Smart Locks enable you to remotely unlock and lock doors.



Lighting

Smart bulbs can either be controlled from your smartphone or voice-controlled through your smart home device with brands such as Philips Hue offering options that include colour-changing bulbs.



Heating and cooling

- Smart thermostats are taking indoor climate control to a new level, with Google's Nest and Ecobee, among others, using advanced algorithms and sensors to adapt to your lifestyle and preferences.
- By recognising the routines of each household, they can adjust temperatures accordingly, which could mean living areas are automatically warmed up each evening or bedrooms are kept cool at night for sleeping.
- Devices can sense when a property is empty, and enter energy-saving mode, returning to the preferred setting when they detect the householder has returned home.

In practical terms, this means you could enjoy the comfort of waking up to a warm bathroom during the winter months or returning home to a cool living room after a hot summer's day.



Kitchen appliances

Smart devices are turning the kitchen into an innovative modern hub with major brands including Samsung and Bosch at the forefront of this domestic revolution.

Such is the scope and scale of high-tech appliances they can undertake a range of duties, from simplifying culinary tasks to perfectly cooking meals and monitoring grocery lists.

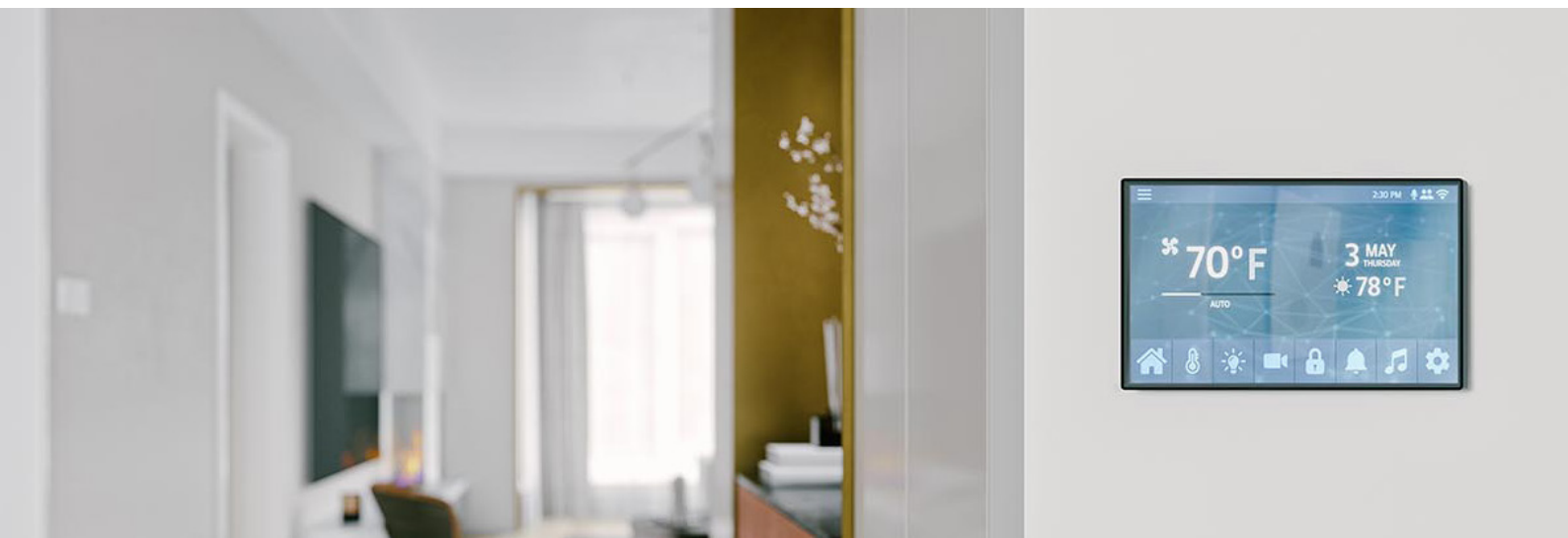
- Smart refrigerators have grown beyond food preservation to become digital assistants that aid effective meal planning and grocery shopping thanks to internal cameras allowing you to remotely check contents via an app.
- Smart ovens have revolutionised baking and roasting with features such as remote operation, programme recipes and self-cleaning.
- Many kitchen appliances can connect to home automation systems, enabling you to control them through voice commands or automated routines and helping to streamline kitchen tasks as well as enhancing your overall cooking experience. For instance, you could program your smart coffee-maker to start brewing when your morning alarm goes off, while your smart oven could preheat itself as you are heading home with groceries.



Audio-visual entertainment

This has changed out of all recognition with smart TVs and sound systems providing an immersive entertainment experience.

Sonos is one of the leading brands offering excellent wireless speaker systems, while companies such as LG, Samsung and Sony provide top-of-the-line smart TVs that come with integrated streaming services.



How you can help the environment

Having an energy-efficient home is a win-win because it doesn't only reap rewards for householders, but by reducing your carbon footprint it is kinder to the environment too.

Harmful emissions are known to contribute to global warming, but there are a variety of ways you can lessen their impact by taking a more sustainable approach.

- Ensure your boiler is working at optimum levels as inefficient boilers produce more carbon emissions.
- Ensure you have good insulation to prevent heat exchange between the interior of your property and outdoors.
- In warmer months, allow cool breezes to provide natural ventilation, but if you do need something more, try radiant cooling systems which work by absorbing heat radiated by objects in the room, providing a subtle cooling effect that can be far more energy-efficient than traditional air-conditioning.
- Use shading and landscaping to keep your home cool in summer and cut reliance on air-conditioning.
- Trees, shrubs and vines are an excellent environmentally-friendly option to provide shade and can also boost the biodiversity of your outdoor areas.
- Growing plants directly on the roof or walls of your home provide excellent insulation, absorb heat and are also a wildlife habitat.
- Energy-efficient appliances consume less electricity and generate less heat. For instance, LED lights emit less heat than traditional incandescent bulbs.
- Use a smart thermostat to conserve energy and cut waste, reducing your carbon footprint.
- Install solar panels to generate your own electricity and keep your property warm, with south-facing panels the most productive.

❗ *It is important to consider location-specific measures like redirecting outside lights away from wildlife habitats and installing wildlife homes like bat boxes to provide shelter for species like bats, thus supporting local biodiversity. These efforts collectively contribute to creating a more sustainable and eco-friendly living environment.*



CDMS
· SUSSEX LTD ·

How can we help?

At CDMS Sussex we have the experience and knowledge to help you transform your home into an efficient and comfortable living space that perfectly suits your needs.

By harnessing the newest and best technology and the latest designs, we can create areas that complement your everyday routines in a sustainable way that enhances the efficiency of your home.

Remember, adopting new technology doesn't mean you need to sacrifice the charm and character of your Sussex home. It's about enhancing it and making it work smarter, not harder.

At CDMS Sussex, we're committed to lessening our impact on the environment. We achieve this by using smart geothermal heating, eco-friendly materials, innovative building methods, waste reduction, and clean work practices. This ensures that our custom homes are not only luxurious but also sustainable for the long term.

Let us help you transform your home into a technologically enhanced, efficient and comfortable living space.

T. 01444 848278 E. info@cdmssussex.co.uk W. cdmssussex.co.uk

