Simple guide to setting up an Energy Monitor

You've decided you want to save money and become more involved in your household's energy use, and, as the old saying goes, you can't manage what you can't measure, so you've got yourself a new energy monitor. Buying an energy monitor won't reduce your electricity bills on its own, but it will highlight where you can save money, and show you the instant impact that your energy-saving actions are having. However, now that you've got it, you're not too sure how to set it up. The diagrams don't quite make sense, the writing is too small to see and you swear it's partly in Welsh.

There is, however, no need to worry, as help is at hand in the form of this simple guide to setting up an Energy Monitor.

In this instance, we are using a British Gas EnergySmart™ monitor. The setup might be slightly different for your chosen monitor so please take this guide as more of a signpost than an absolute law. If you get to the end of the instructions and are still struggling, we recommend contacting your energy company or visiting their website for more tailored supervision.

Further, even if you are setting up the British Gas EnergySmart™ monitor, we'd still recommend reading the instructions as there is some important safety information included within. Further, if you're an Oxfordshire or Buckinghamshire resident and this guide inspires you to take control of your home's energy use and acquire an energy monitor why not ask the National Energy Foundation for a free one at our next event near you. Please contact our Helpline on 0800 107 0044 to find out about our events or ask if we can provide hints and tips for lowering your energy bill or switching energy providers and see if there is any financial assistance that you may be eligible for.

Step 1: Open the Box

As a rule, opening the box is a good first step regardless of the task at hand. The picture below on the left shows the monitor's display which, as the name suggests, is the user-facing side of the device which will show your energy use in real-time. The picture on the right shows the transmitter which sends the energy measured by the sensor wireless to the monitor, the sensor which clips around the mains electricity cable and is the bit that actually monitors, and the power supply which comes in two pieces and powers the monitor directly from the mains.



Figure 1: The Energy Monitor's monitor



Figure 2: The transmitter (left), sensor (top right) and power supply (middle and bottom right)

Step 2: Attach the sensor

Once you're well acquainted with the contents of your box, the next stage is to attach the sensor to the live mains cable going in to your electricity meter. You should be well aware of where to locate your electricity meter as you are regularly taking meter readings to make sure you receive accurate billing. Just in case you're not sure where your meter box is, common locations include on a wall outside where the powerline comes into your home, in the cupboard under the stairs or on a wall in your hall. You need to make sure to connect to the 'live' mains cable which will be either brown, red or have an L on it. In our case there were four cables, the two on the left (with a single ring) supply the electricity to from the generator to your meter while the two on the right (with a double ring) connect the meter your house. If you have a similar situation, make sure you connect it to the brown cable with two rings. You should hear a click to indicate the sensor has been tightly closed. You then plug the other end of the sensor cable into the transmitter.



Figure 3: Connecting the sensor to the live mains wire

Step 3: Activate the transmitter

Once you've connected the transmitter to the sensor cable you need to activate it. Open the transmitter by pressing the button on the back and pulling away the outer cover as shown in the picture below. You then remove the battery tab, shown below as the red piece of the card labeled "pull out". The red light will flash to show that the transmitter is working.



Figure 4: The transmitter with the back removed

Step 4: Assemble the power supply

Connect the two pieces of the power supply together by inserting and twisting clockwise the prongs to the power supply. Like the sensor, you'll hear a small click when the two are firmly locked.



Figure 5: The power supply in open and closed position

Step 5: Plug it in

The fifth and final step is simply to connect the power supply to the display via the black cable and plug it into an easily visible power socket. The monitor will light up and ask you to enter the correct date and time using the plus and minus buttons. Once you've entered the correct values, press the middle O button to save.



Figure 6: A plugged in, functional energy monitor

Step 6: Start Saving

OK so while Step 5 was the final in the installation, the most important period is after you've set up. One way to find out about your energy use after plugging in your chosen monitor is to turn everything off you can in your home – this will get the reading on the monitor as low as possible. Next, go through your house and try turning on and off different appliances and watching the monitor reading spike and recede. This will help identify which appliances are the highest energy consumers and what effect turning off appliances (instead of leaving them on standby) has on your electricity consumption. After you've figured out which appliances are high energy users (hint: check your kettle), the next is to assess your habits and energy using behaviours to make sure you're using your appliances as efficiently as possible and not wasting energy. For a list of free behavioural changes to lower your energy use, see our 10 Quick Wins to Save Energy article.