



Low Carbon Technology Guide

Smart meters

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1. What is it?

Smart meters are the next generation digital gas and electricity meters installed by energy suppliers that automatically send meter readings to your energy supplier. Smart meters consist of two parts:

- The digital meter that replaces your existing meter and uses a secure network to wirelessly send information about your energy usage to your supplier.
- The in-home digital display that provides near-real-time information on different aspects of your energy use, such as how much you are using, when, and what it costs you.

According to the Energy Saving Trust, over 60% of all households and small businesses in the UK have smart meters already installed, and every home and office in England, Scotland and Wales should be offered one by mid-2025. The UK government has set the goal to have smart meters installed in 74.5% of homes and 69% of small businesses by the end of 2025.

2. What are the benefits?

2.1 BETTER UNDERSTAND YOUR ENERGY USE AND SAVE

The in-home display communicates wirelessly with the smart meter and shows the amount of energy you are using, updating every half an hour for gas and in near-real-time for electricity. The in-home display allows you to check the energy used and how much it cost you in the last hour, week, and even month.

The in-home display could also help you identify which appliances in your home use a lot of energy, possibly encouraging you to change how you use them or replace them with more energy-efficient versions. This could help you lower your energy bills and carbon footprint.

2.2 PAY FOR WHAT YOU USE

Both credit and prepayment customers can benefit from smart meters.

Smart meters regularly and automatically send information on your energy usage to your supplier, meaning that you only pay for the energy that you have actually used instead of the estimated usage, as is the case with traditional meters. Further, because smart meters also lower costs to energy suppliers by avoiding manual meter reads and reducing billing queries, customers with smart meters are often offered cheaper tariffs.

2.3 ADDITIONAL BENEFITS FOR PREPAYMENT CUSTOMERS

If you are on a prepayment tariff, the in-home display can be used to track your balance, check how much emergency credit you have, and some energy suppliers even offer low-credit alerts to ensure that you do not run out unexpectedly.

Smart prepayment meters also enable customers to top up remotely, which can be done by phone, text, online, or via an app. This means that you do not have to leave your home to top up, but you can still top up at a shop if you prefer. Additionally, if you top up in the store, the credit is added to your meter automatically without the need to insert your key or card.

Finally, if you want to change from prepaid mode to credit or vice versa, this can be done remotely without the need to change your smart meter.

2.4 SAVE MONEY BY SWITCHING TO A DIFFERENT TARIFF

Having a smart meter installed would enable you to take advantage of the time of use tariffs (TOUs), where the price of energy changes throughout the day based on the energy demand and supply. This will allow you to save money if you are able to use less energy during periods of high demand and more energy during periods of low demand.

2.5 HELP TACKLE CLIMATE CHANGE

Energy networks are using smart meter data from thousands of households to create a smart grid which is able to better manage energy supply and demand. This enables the networks to better integrate renewable power, such as solar and wind, and reduce the need for fossil fuels.

3. What if I change the energy supplier?

There are two versions of smart meters available: first generation (SMETS1) and second generation (SMETS2). The key difference between the two is how they send data to your energy supplier. Some SMETS1 smart meters are not easily switched between suppliers and might not allow you to take advantage of more advanced offerings, such as time of use tariffs. SMETS2 smart meters do not have these issues, so you should not have any problem switching your energy supplier.

If you have a SMETS1 smart meter, there is a chance that it will have to be upgraded before mid-2025 to meet the technical specifications required by the UK government. If that is the case, your energy supplier will get in touch to arrange a replacement or a remote upgrade (the software of the smart meter would be updated to ensure that it meets the requirements).

4. How much does it cost?

There is no upfront cost of installing a smart meter. The costs will be spread across the bills of all the customers, similar to how it is done for traditional meters.

5. What is the maintenance like?

Smart meters should not require any maintenance but will likely need to be replaced every 10 years or so. Your energy supplier should let you know when your smart meter is due to be replaced and make arrangements with you to do so.

6. How can I get it?

To get a smart meter, you can contact your current energy supplier directly to arrange installation or wait until they contact you themselves. You can find more information on how to request an installation here: [Smart Energy GB](https://www.smartenergygb.co.uk).

Smart meter installation typically takes around an hour, depending on where your current meters are located and how difficult it is to access them.

7. Useful websites

For more information on smart meters, please visit the following websites:

[Energy Saving Trust](#)

[UK Government](#)

[Smart Energy GB](#)

[Which? Guide – What to expect from a smart meter installation](#)

[Which? Guide – What is a smart meter?](#)

Please note that the information provided in this guide is subject to frequent changes. Readers are strongly advised to verify the information through the links provided above or consult other reliable sources before making any decisions.