

# FACTSHEET: ELECTRICITY METERS, BILLING AND RESTRICTED METER TYPES



Electricity powers our lighting, sockets and appliances and, for many of us, our heating and hot water.

Your electricity meter records the amount of electricity you use, so your energy supplier can bill accurately. There are three key groups of electricity meter types, and which one you have will affect how you are billed for the electricity you use.

	Single rate meter	Economy 7 type meter	Restricted meter
Number of readings on your bill/ statement	1	2 (‘day’ and ‘night’ use)	2 or 3 (‘day’, ‘night’ and ‘control’, or ‘peak’, ‘off-peak’ and ‘heat’, for example)
Number of physical meters	1	1	2 (maybe only 1 if you have a prepayment meter)
Number of supply numbers (MPANs)	1	1	2



A MPAN is a 21-digit number that identifies your meter. In Scotland it will start with a ‘17’ or ‘18’, you’ll find it on the meter and on your bill.

## How do I know what meter I have?

If you’re not sure what meter you have, you can check your electricity bill.

Check the meter or your bill to see if you have more than one MPAN or Supply Number, and how many different rates you are charged for your electricity.

- If you have a single MPAN, single rate and standing charge, you probably have a single rate meter
- If you have a single MPAN, a night rate, a day rate and a standing charge, you probably have an Economy 7 type meter
- If you have Economy 10, Economy 2000 or two MPANs, and two or three rates plus a standing charge, you probably have restricted meters.

If you don't have a bill handy, or this information isn't available on your prepayment meter, contact your electricity supplier.

Your electricity supplier can tell you what tariff you are on, how it works and whether a cheaper rate is available.

### **Billing – how does it work?**

All the electricity you use is recorded by your meter, with the number of units (kWh) used. Meters are either credit meters or prepayment meters.

If you have a prepayment meter, you need to pay for your electricity before you use it. Depending on the meter, this is done using a smartcard, token or key that can be topped up at a shop or via a smartphone app.

If you have a credit meter you need to supply meter readings, either over the phone or online. Your energy supplier will also send someone to read your meter from time to time, and will use these meter readings to prepare your energy bill

With a credit meter, you will receive a bill based on your actual or estimated electricity use. For an actual bill, your energy supplier will work out the difference between the reading submitted at your last bill, compared to your most recent meter reading, and charge you for the actual number of electricity units used.

If you don't submit a meter reading, the energy supplier will estimate how much they think you've used based on what you've used before. It's best to give actual readings often, as it keeps your account in line and stops you getting an inaccurate bill based on a bad estimate.

### **Single rate meters – how do they work?**

If you have a single rate meter, you will have one physical electricity meter with a single supply number (MPAN).

You are most likely to have this type of electricity meter if you use another fuel for heating. For example, if you have a gas or oil central heating system, you probably have a single rate electricity meter for your electricity use.

Some electric heating types, like a heat pump, could match well with a single rate meter, but they are less common with storage heaters or an electric boiler connected to radiators.

If you have a single rate meter you only need to submit one electricity reading to your energy supplier. You're then charged the same rate for all of the electricity used, plus a standing charge.

## **Economy 7 type meters – how do they work?**

An Economy 7 type meter is a single meter, with a single MPAN. This meter has two readings, one recording your daytime electricity use and one recording your night-time electricity use.

If you have electric storage heaters and have a dual rate meter, you will get between 7 and 8.5 hours of night-time electricity every day. These hours are in a single overnight period when electricity demand is low. This is most common in households with electric storage heaters. If you don't have electric storage heaters, it can be difficult to use enough electricity during night-time to benefit from this type of meter and its night-time rate.

On Economy 7, the electricity units you use during peak times are typically more expensive than a single meter single rate tariff. This means it is more expensive for you to run your appliances during daytime than it would be for someone with a single meter, on a single rate tariff.

If you have an Economy 7 meter, you need to submit two electricity readings to your energy supplier. You're charged a different rate for the daytime units and the night-time units, plus a standing charge.

## **Switching supplier on single rate or Economy 7 type meters**

All energy suppliers offer tariffs compatible with single rate meters, and many also offer tariffs compatible with Economy 7 meters. By using an online price comparison website, it can be easy to compare offers on single rate or Economy 7 dual rate tariffs between suppliers. We recommend using [Citizens Advice Bureau's Comparison Tool](#) to find the best energy deal. If you don't have internet access you can phone Citizens Advice on 0808 223 1133 and they will send you a factsheet with the deals available in your area. Citizens Advice also offer a textphone service on 18001 0808 223 1133. It's a good habit to check for better prices regularly, every 6 months or so, as suppliers offer new tariffs often.

If you have an Economy 7 meter and do decide to switch, just be careful to check what your new supplier's night-time hours are. It might be different from your current supplier, so you'll need to adjust any timed appliances to the new off-peak period.

## **Restricted meters – how do they work?**

If you have more than one electricity meter, or more than one MPAN, you have restricted meters.

Restricted meter tariffs provide different rates for electricity. One rate is often restricted to just your heating, or just your heating and hot water. On your bill, you might see this written as the control, or heat, rate.

Some restricted meter tariffs do provide more cheaper-rate hours than E7-type tariffs, but these hours may only apply to heating, or only heating and hot water, rather than everything that uses electricity in your home.

The control rate may only be available at certain times to charge your storage heaters. This is usually between 5 and 11 hours every day. One period is always overnight, but you may receive afternoon and evening 'top up' periods, too.

For the rest of the electricity you use, like powering lighting and appliances, you might then have a day and night rate or, more commonly, just one rate for all other electricity use at any time of day.

The most common restricted meters and tariffs are:

- Total Heat, Total Control (THTC)
- Standard Economy & Heating Load
- ComfortPlus Control (CPC)
- ComfortPlus White Meter
- ComfortPlus White Meter with Weathercall.

There are other restricted meter types, though.

If you have an electric boiler, you might also have a restricted meter. This might be an Economy 10 meter, which gives you 10 hours of a lower rate for your heating and hot water. Or it could be an Economy 2000 meter, which gives you 18 hours of a lower rate for your heating and hot water.

Not many energy suppliers offer tariffs specifically for restricted meters, so it can be difficult to compare prices on a like-for-like basis. If you are thinking about switching, it's important to know how your heating works and how any new meter and tariff will work. If you do decide to switch, we recommend you arrange with your current supplier to change your meter first to match it with the type of tariff you'd like to switch to. However, there are protections in place that allow you to switch to most energy suppliers' single rate tariffs without changing your meter and without additional charge. Details of this are available on [Ofgem's website](#).

### **What are RTS meters?**

A radio teleswitch meter (RTS) is a component of some restricted meter types. It's a meter with a radio signal receiver. The electrical distribution network operator, or DNO, can communicate with the RTS meter to change the off-peak period via radio signal. This isn't your energy supplier, it's the company that's responsible for distributing electricity from power generators to our homes.

In practice, having a RTS meter may mean you have variable periods of time available for your control rate hours, and you might not receive these hours at the same time every day. For example, the DNO might use this to give you more hours for your heating when it's colder outside.

## Heating and restricted meters

It's important to understand how your heating system works and make sure it matches your meter type, otherwise you could be spending more on your electricity bills than you need to.

Restricted meters are designed with a specific heating system in mind. For example, Total Heat, Total Control (THTC) is designed to work with storage heating, and Economy 2000 is designed to work with an electric boiler connected to radiators. If you don't have the heating system that matches the meter, the restricted meter tariff probably isn't suitable for you.

It might be a good opportunity to look into replacing your meter type if you're changing your heating system with a different type of heating. For example, if you are changing from storage heaters to a heat pump, a single rate meter might be the best option for you. While your storage heaters might have worked well with your Economy 7 or restricted meter tariff, as your heat pump will be on most of the time, you probably won't benefit as much from the cheaper rates and find you're using more electricity during the peak rate.

Even if you do have an electric storage heating system or electric boiler with radiators connected to it, restricted meters are not always the best option. It might be worth replacing your meter so that you have more options to change supplier or tariff.

## We're here to help

Electricity meters, billing and restricted meter types can be confusing and that can make it difficult to decide what is right for you. Home Energy Scotland provides free and impartial advice to all householders in Scotland. Our advisors can support you with advice on your heating system and its controls as well as explain your meter type and how you are billed for your energy use if you're not sure.



If you have more questions, [Home Energy Scotland](https://www.homeenergyscotland.org) is here to help. Call us free on 0808 808 2282 to have a chat about your energy use, how to get the most out of your heating system and save money on your bills.