

With a growing emphasis on flexibility and demand response, one technology that does not get the focus it deserves in the debate about the energy transition is electric storage heating. And linked to that, one set of customers that do not currently get the focus and protection they deserve are the 3mn or so households on Economy 7 or equivalent tariffs. New research discussed at a recent Sustainability First roundtable highlights the lottery these customers face in the market, even on what is supposed to be a regulated tariff.

A future for storage heating

There are around 1.5mn homes with storage heating in GB at present with the heaters charged up overnight and the heat then released in the day. Many of those will also have hot water tanks that are charged up overnight. As such, these customers are making a major contribution today to helping keep peak load low, using most of their electricity overnight. Doing just what everyone gets so excited about trying to persuade electric vehicle (EV) owners to do.

Although electrification of heat is generally seen as synonymous with installing heat pumps, there is acknowledgment in National Grid’s Future Energy Scenarios and the Climate Change Committee’s work that storage heating has a part to play. There are some smaller properties that either practically cannot accommodate a heat pump or where the up-front costs are not justified given the limited heat demand if the property is well insulated. While historically storage heating had a poor reputation as being “leaky” and hard to control, the technology has moved on and high heat retention and smart controls are now standard.

In its recent consultation on Delivering a Smart and Secure Electricity system, BEIS acknowledges the important role of modern storage heating in providing demand side flexibility, and as part of the transition to decarbonised heat.

The “tariff lottery” that Economy 7 customers face

Economy 7 is a tariff that was designed for use with storage heaters and gives customers seven hours of cheaper electricity at night but with a more expensive day rate than standard tariffs.

While in principle these customers are protected by Ofgem’s Default Tariff Cap and the government’s Energy Price Guarantee (EPG), in practice regulation is failing them.

One major concern is that Ofgem allows suppliers flexibility to set their relative day and night rates as they wish, provided that the weighted average of the two rates is below the cap that Ofgem has set (with Ofgem assuming 42% of electricity is used at night). This gives suppliers significant discretion in how they set their rates and creates a lottery for customers.

For example, in Eastern region (as of January 2023) the wide range for direct debit is shown in the table (with other suppliers falling between these two extremes).

	Night rate p/kWh	Day rate p/kWh
EDF	7.0p	54.5p
Shell Energy	22.5p	43.3p

In both cases this equates to an average of 34.6p/kWh on Ofgem’s calculation – but customers will see a huge difference in their bill depending how much of their energy use is actually at night. To call this a regulated tariff is a misnomer.

While very few suppliers provide a full schedule of their tariffs it is clear that the balance of day and night rates also varies by region (with, for example, North Scotland typically having less generous night rates but cheaper day rates) and by payment method.

While Ofgem’s calculation of the weighted average uses a national 42-58 night-day split, the TDCV analysis on which this is based shows a significant variation across regions. For example, in 2019 N. Scotland and S. West had the highest proportion of night time usage at 51% while Eastern was relatively low at 37% (with E. Midlands the lowest at 32%). It is not surprising that suppliers who are aware of these differences will be

looking at how to play this to their advantage.

Ofgem needs to review the flexibility that exists in the price cap for Economy 7 to limit the scope for gaming and to prevent the current lottery. If customers could switch suppliers there would be some merit in having a range of tariffs in the market. However, switching has always been more problematic for Economy 7 customers and in the current market is impossible.

The lack of transparency

For customers who have storage heaters, Economy 7 is almost certainly still the best option and indeed there are some very attractive night rates available. However, there are a large number of households – around 1.5mn – who are on an Economy 7 tariff but who do not have storage heating, and who could now be paying hundreds of pounds a year more than they would on a standard single rate tariff.

Consumer advice agencies are struggling to explain the price changes to Economy 7 customers given the limited information available from BEIS and Ofgem. The lack of transparency on supplier tariffs also makes it hard for them to deliver advice on what action to take (e.g. on whether customers would be better off on a single rate tariff).

Of course, suppliers will know how much of a customers' demand is on day or night rate. They are required to point out where customers would be better off on a different tariff but the one example letter we have seen fell a long way short of being clear and helpful. In line with the requirement for suppliers to treat customers fairly, the consensus from consumer groups was that suppliers should be more proactive in making sure that where a customer is on Economy 7 it is the right tariff for them.

And even where Economy 7 is the right tariff, customers need to be clear how the tariff works. For a customer with EDF in Eastern region on PAYG where the night rate is 1p/kWh and the day rate is 57p/kWh, they really need to know when the rate switches over. But research by Citizens Advice a few years ago found that a quarter of Economy 7 customers were unsure when the cheaper off-peak rates applied.

Other issues with the Ofgem price cap

As well as the “tariff lottery” that exists we have concerns about other aspects of the design of the Default Tariff Cap and that:

- Economy 7 customers are being overcharged on average by around £100 pa because in setting the price cap Ofgem does not take account of the fact that these customers use relatively more electricity at night when wholesale electricity prices are lower; and
- The interactions between the Ofgem price cap and the EPG mean that Economy 7 customers are seeing their prices move every quarter. For example, in January Economy 7 customers saw an average price increase of 8% when for most people prices have been held constant through to April under the EPG.

Why this matters

Ofgem's Customer Archetypes show that customers on Economy 7 are typically young people in rented accommodation or elderly / disabled people on low or very low incomes – customers who are often disengaged and that Ofgem should be protecting as a priority in the current energy crisis. At around 10% of households this is a significant part of the market that merits much more attention.

It is also important in laying the ground for the net zero transition. With the move to Market-wide Half Hourly Settlement everyone is expecting more Time of Use (ToU) tariffs in the market. It is therefore vital that Ofgem understands the issues that customers on these basic ToU tariffs currently face (including low awareness of the rates at different times) and how to ensure these customers are suitably protected. Finally, if customers cannot be assured that electric storage heaters are more cost effective to run we will see a shift to direct electric heating, pushing up peak loads.

Summary of our asks

In an open letter that Sustainability First has sent to Ofgem we have called on them to include a focus on Economy 7 and multi-rate tariffs across their forward work programme including reviewing how they are treated under the Default Tariff Cap, improving transparency, ensuring that suppliers are complying with their “treating customers fairly” licence obligations and assessing what additional data Ofgem needs to effectively monitor and oversee this part of the market. In summary, we have asked Ofgem to give this neglected group of customers the attention they deserve and address this regulatory blind spot.