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Wednesday, 25 January 2012 15:18 - Last Updated Tuesday, 31 January 2012 11:11

Navetas study reveals a lack of understanding over how household behaviour is impacting electricity bills

Consumer misconceptions over which appliances are using the most energy in the home

Ipswich, UK - 23 January 2012: A study carried out by Navetas into the energy consumption of appliances in the home has revealed the extent of consumer misconceptions over the appliances making the biggest impact on their electricity bill. This lack of clarity could be causing households to focus energy efficiency measures in the wrong place, warns Navetas, at a time when analysts are predicting average electricity tariffs could increase by £300 a year*.

Developed as an educational aid for schools, the online Navetas Energy Challenge tests users to correctly order a range of home appliances, from the most energy consuming to the least, based on typical weekly usage habits. The results so far show a clear lack of understanding of the impact of household behaviour on energy consumption, with consumers significantly under-estimating the impact of using some appliances.

Using Navetas' intelligent energy disaggregation technology, the kWh energy usage of 26 appliances has been measured and calculated. The data, applied to typical household usage scenarios, demonstrates that appliances used on a daily basis for a short time, like the hair dryer, kettle and electric shower, could be doing more to drive up energy bills than energy-hungry appliances used just once or twice a week, such as the tumble dryer or washing machine.

Weekly power usage

1. Hoovering for 90 minutes - 1.95 kWh
2. Using the washing machine four times - 2.24 kWh
3. Using the tumble dryer two times a week (30 minutes each time) - 2.5 kWh
4. Drying your hair for 10 minutes a day - 2.56 kWh

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5. Ironing for two and a half hours (per week) - 3 kWh
6. Kettle boiled three times a day - 5.25 kWh
7. Electric shower for five minutes a day - 5.83 kWh
8. Fridge/freezer 24 hours a day - 7.82 kWh
9. Dishwasher used daily - 10.08 kWh
10. Electric oven for one hour per day - 13.65 kWh

According to Chris Saunders, CEO at Navetas Energy Management, the results have uncovered a worrying lack of clarity over the impact of consumer household behaviour on energy bills:

“Energy users are faced with electricity bills that present a total usage figure and cost, with absolutely no insight into how this breaks down at an appliance level. Our study has revealed that many consumers could be jumping to the wrong conclusion about how much it is costing them to use certain appliances and not taking into account household behaviour. Without this detailed information, many attempts at being more energy efficient could be focusing on completely the wrong areas.

“The Government’s Carbon Plan clearly states the importance of giving consumers the right information, but this is not happening. Consumers need clarity and understanding over their energy usage and the UK’s smart meter rollout offers an ideal opportunity for energy providers to deliver these insights. Ensuring these meters are intelligent management systems that can identify energy usage by appliance will empower consumers to understand how, when and why they are using energy, and focus on the behavioural changes that will make the most difference to their bill.”

Navetas has developed unique energy disaggregation technology that can accurately measure energy consumption at an appliance-level, from a single point in the home, without the need for additional sensors.