

Using energy data to control usage, manage costs and help the environment

The Government supported smart meter innovation to help small businesses control energy usage, manage costs and help the environment.

Smart meters unlock the potential of energy data. They provide insight about businesses' energy consumption that enables consumers to control energy use and manage costs. Smart meters are essential for the upgrade of Great Britain's energy grid, helping to pave the way for new services and technologies and a low carbon future.

To support the rollout of smart meters, the Government funded the development of smart energy management innovations to help small businesses turn energy data into tailored energy management actions.

Considerate Group, Element Energy and **Hildebrand** were funded to develop innovations designed to give hospitality businesses the knowledge and capability to become more energy efficient. The main benefits delivered through these innovations were:

- Saving money on energy bills
- Increased operational efficiency
- Increased ability to manage and monitor energy use
- Ability to identify energy waste
- Increased awareness of energy use among staff
- Becoming more environmentally friendly

The innovations offered the following features:

Fluttr is a mobile application that correlates users' energy consumption data with key business metrics (such as room bookings for hotels or food covers for restaurants) and provides energy saving tips tailored to business type and job roles. Through Fluttr, hospitality businesses can easily track improvements in energy efficiency and associated cost reductions.	Energy Comparison & Advice Tool (E-CAT) is a web application that monitors energy data and presents it to users at half hourly intervals. It shows a comparison of energy consumption with organisations of a similar type and size ('benchmarking') and provides energy saving tips and recommendations tailored to the users business.	GlowPro is a range of applications (web and mobile) each of which is designed to support the very different functional roles people perform within a business. GlowPro uses energy data in conjunction with analytic modelling to help businesses identify operational and energy efficiency opportunities.
Developer: Considerate Group	Developer: Element Energy	Developer: Hildebrand

How can smart energy management innovations benefit your business?

Here are some of the benefits the hospitality businesses experienced from piloting the innovations:

Saving money on energy bills

[We now] turn the boiler off at night. I found out that it was charging a lot in the night ... it was a surge on the graph ... I've told a few people about the boiler, to look because it saves a lot of money, especially other business owners that I know.

Owner of a coffee shop in Norwich, piloting E-CAT (Element Energy)

We're reducing [energy] usage ... because of ... the blackout ['switch-off' timer] periods that we've put [in place] for fridges and ice machines. I think that's where the majority of the savings have been.

James, founder/manager at a cocktail bar chain in London, piloting GlowPro (Hildebrand)

Increased operational efficiency

It said on [the E-CAT tool] the fridge works most efficiently if it's over half full rather than having only a few things in it. So ... if you've only got a couple of cans in it, take them out so that you can switch it off.

Owner of a coffee shop in Norwich, piloting E-CAT (Element Energy)

Increased ability to manage and monitor energy use

The [E-CAT] trial gave us a very good picture of the profile of our daily use. We could see clear patterns and correlate those to specific activities, like turning on the coffee machines in the morning, which are quite heavy [in terms of] energy usage. You're able to understand the pattern of usage and overlay it onto the pattern of your business.

Richard Tryner, manager of Delilah Fine Foods Ltd. in Nottingham, piloting E-CAT (Element Energy)

Before we used this, we had no idea when or how much [energy was used], apart from receiving the bills at the end of the month.

Daniel Flounders, manager of Crafted Projects in Newcastle, piloting GlowPro (Hildebrand)

Ability to identify energy wastage

[E-CAT is] very useful ... I think the background usage was the thing that we got the most results out of, because we were able to experiment with switching things off overnight and seeing the impact that that's had ... so we've used it to ... compare the usage on the day we [turned things off] to the equivalent day the week before, so we could see the impact.

Richard Tryner, manager of Delilah Fine Foods Ltd. in Nottingham, piloting E-CAT (Element Energy)

Increased awareness of energy use among staff

(1) The cleaning staff] put all the lights on in every room ... when you show them [Fluttr] you show them that energy consumption has gone down you'll let them behave their normal way one day, and then the next day you say ... you've saved [for example] £1.27 in energy [by turning room lights off]. They go, oh wow, £1.27 a day.

Jonathan Kaye, owner of Cedar Manor Hotel in Windermere, piloting Fluttr (Considerate Group)

You can easily say, well if we leave that on, it's costing £2 a day. I think, certainly when you're talking to team members, talking in pounds is a lot better than kilowatt hours.

Steve Dorman, owner/manager of Alexandra Hotel in Weymouth, piloting Fluttr (Considerate Group)

Becoming more environmentally friendly

[We piloted E-CAT] for cost and environmental reasons. We know we're a heavy energy user, we wanted to reduce our costs and reduce our carbon footprint.

Richard Tryner, manager of Delilah Fine Foods Ltd. in Nottingham, piloting E-CAT (Element Energy)

I want to be more environmentally friendly and ... make sure the pub runs [in an] environmentally friendly way ... then you realise in the end there are cost savings as well, which is great. I didn't [trial Fluttr] for the money but I realise that the money is a bonus, the extra savings are a bonus.

Nicky Wragg, owner/manager of The Green Dragon in Wiltshire, piloting Fluttr (Considerate Group)

More about the innovations piloted, including evaluation reports and insights for innovators can be found here: <u>https://www.gov.uk/government/publications/non-domestic-smart-energy-</u> <u>management-innovation-competition</u>.



Department for Business, Energy & Industrial Strategy