

Chopping off the tip of the iceberg

The Government is about to launch a new scheme aimed at cutting electricity consumption. But, argues Gambica* deputy director, Steve Brambley, the scheme is too limited in its scope.

The Department of Energy & Climate Change (DECC) is currently consulting on a pilot scheme to incentivise electricity users to reduce their consumption. Called the Electricity Demand Reduction (EDR) pilot, it will be launched in June 2014 and will have a pot of £20m available to support projects that deliver lasting reductions in electricity demand.

The aim of this pilot is to test whether EDR is a viable component of the GB Capacity Market – the mechanism whereby energy suppliers bid to provide capacity into the network.

So far, this sounds like a good idea and is in line with Gambica's input into previous DECC consultations, by providing financial incentives that give businesses the confidence to invest in energy-saving technology. Not only does this help to meet DECC's goals for a national reduction in CO₂,

but also boosts UK businesses with a bottom-line saving and an investment for growth.

However, the scheme doesn't cover as broad a scope as the Electricity Demand Reduction name implies. Looking at the details of the pilot, Peak Demand Reduction might be closer to the mark. One of the eligibility criteria is that the project must deliver efficiency savings during times of peak winter electricity demand (3-7pm on weekdays, November-February), reflecting the primary goal of preventing peaks in demand from outstripping supply when the network is at its most stressed point.

This is further reinforced by the auction process by which the subsidies will be awarded. To participate in the scheme, it will be necessary to make a bid comprising two factors:

- the kW reduction during the winter peak (note this is instantaneous kW, not kWh); and
- the amount of financial subsidy requested.

Successful bids will be those with the lowest £/kW ratio, delivering the greatest reduction in demand for the £20m available.

The kW reduction component is a confirmation that the pilot is focussed primarily on preventing the lights from going out during periods of peak demand.

Rather than assessing the amount of energy saved over time, it seeks to ensure that the instantaneous peak demand doesn't exceed capacity limits. This is an important goal, no doubt, but it is really only chopping off the tip of the

iceberg when it comes to reducing total energy consumption. Reducing the baseload – the much larger body of the iceberg below the waterline – would save a lot more energy and contribute to pulling the tip back under the surface.

Let's take an example. Suppose a project delivers a 50% energy saving by using sensors and soft-starts to switch off a conveyor system automatically when it is not needed. If the conveyor system was in a 24-hour / 52-week operation, then the energy and cost savings would be significant. However, this approach will not reduce the instantaneous peak demand, and the project would therefore not qualify for the EDR scheme.

A widespread implementation of energy-saving projects that switch machines off or reduce speed when possible, will surely bring down not only the average energy consumption over time (kWh), but also reduce the likelihood of them all combining to peak at the same time (kW).

It should be pointed out that the scheme has not been finalised and DECC is still consulting with stakeholders, so any part of the pilot could change before the June 2014 launch. Gambica is actively providing feedback to DECC throughout the consultation, but I would be interested to hear any readers' views on the pilot.

Further information on the EDR pilot can be found on the DECC Web site at <http://goo.gl/TPhgll> ■



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