Smart grid trial programme gets underway in London

Smart grid trials have begun in London as part of UK Power Networks' Low Carbon London project. Funded by Ofgem's Low Carbon Network Fund, Low Carbon London is a £28.3m pioneering learning and demonstration programme, which is using London as a test bed to support the development of a smarter electricity network.

Ziko Abram, director and co-founder of KiWi Power, one of the participating companies, said: "In addition to taking part in National Grid's system balancing programmes and helping our customers reduce their energy bills with triad management, we are now also exploring ways that real time Active Network Management (ANM), triggering a demand response from KiWi Power customers, can help the distribution network operator manage its network in a 'smarter' way."

KiWi Power recruited industrial and commercial businesses from across London to take part in the trials. Participants, including hospitals, hotels, water treatment plants, public sector facilities and commercial buildings, were asked to turn down their non-essential energy use or run their standby generators in response to an automated dispatch signal from UK Power Networks.

Some customers running combined heat and power (CHP) units were also asked to increase or decrease their grid consumption in response to a signal from the utility.

Global lodging company Marriott International currently has several of its London hotels participating in the trials.

John Conlon, senior director facilities and project management for Marriott International Europe, said: "A fully-automated demand response solution allows us to temporarily reduce our non-essential services, such as cooling and air handling during times when the electricity grid is highly congested. Most importantly, all of this can be achieved without impacting comfort levels for our guests."

UK Power Networks and its ANM technology partner Smarter Grid Solutions, supported by KiWi Power, are carrying out the ANM trials, which will potentially facilitate better fault management and allow greater amounts of renewable energy generation to be connected to the electricity network in the future.

ANM provides a way for network operators to tackle issues such as reactive power, fault level and power flow. It also allows power companies and utilities to make better use of existing grid capacity to help integrate energy storage, renewable energy and other controllable resources on the grid.