

SUPERMARKETS AND THE SMART GRID



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RESEARCH IMPACT

The project has identified smarter usage patterns for equipment found in supermarkets across the country. In particular, the project has focused on the use of diesel standby generators, which are used to support the electricity network. As a result of the work, Marks and Spencer have run a trial and are now rolling out the smarter use of standby generation equipment across their estate.



'We're delighted with the research Laura has undertaken and we'd like to thank her for all her hard work over the past three years. Laura's studies have contributed significantly to our strategy on demand side management technologies and will continue to do so as we develop our work in this area.'

Paul Walton
Energy Engineer at M&S



BACKGROUND

The retail sector is a large user of electricity and like many consumers, the sector is beginning to engage more with the electricity network. For Marks and Spencer, the Plan A initiative established in 2007 has driven reduction in energy consumption across the estate. Much of this reduction has been achieved through Demand Side Management and this is where the research fits. The smarter generation and consumption of energy related to the wider demands on the network which vary throughout the day and year, has been the primary focus of the research.

OUR RESEARCH

The research has been addressing financial, logistical and environmental matters associated with the running of standby generators. Initially, logistical and financial aspects were covered – analysis of the retail estate and the status of existing generators compared to electricity prices in different regions in the UK was carried out. In addition, a method to calculate the short term and long term carbon impact of running generators was developed.

OUR IMPACT

A trial run as part of the research project was successfully implemented and as a result, the smarter use of standby generation is now being introduced to a number of sites across the estate. This rollout is a direct output of the work carried out in this research project. This work has directly been feeding into the wider demand side management strategy for the company.

FOR MORE INFORMATION PLEASE CONTACT

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