

Cooking up a power solution for McCain's Home Fries

ABB automatic power factor correction technology has enabled McCain Foods to make more efficient use of the existing power network at its Scarborough site and avoid a major investment in new power infrastructure. The company was able to get its new Home Fries production line up and running using existing supplies.



ABB Capacitors offer the best technical solution to problems related to low power factor and power quality.

The problem

While McCain Foods was in the process of planning its new Home Fries production line it became clear that the existing power network, already operating close to its maximum 9.5 MW load, would not be able to cope with the major additional demand. The company was faced with an estimated cost of around £250,000 to install an additional 11kV/400V substation. Worse still, the YEDL power lines that feed Scarborough from the York Distribution Centre were already operating up to their limit.

McCain called on ABB for help. The first step was a site survey which established that a number of key loads were operating at a significantly low PF (power factor). PF is essentially a measure of how effectively electrical power is being used. The closer to 1 this figure it actually is, the more effective the usage.

ABB's verdict was that the installation of suitable power factor correction equipment would significantly improve network efficiency and release sufficient useable power to meet the needs of the new Home Fries line.

The solution

The solution devised by ABB was to install its sophisticated Advance automatic capacitor banks at eight strategic points in the McCain network – representing a total of 2,900 kVAR. This restored the PF to acceptable industry standard levels, ranging from 0.95 to 0.97, and has made an extra 600 kVA of power available. This enabled production to start in April 2008 without the need for any new network infrastructure.

The verdict

Bill Bartlett, Corporate Affairs Director of McCain Foods said: "ABB's power factor correction equipment has played a key role in our energy efficiency programme that enables the line to draw all the power it needs from our existing power network – without the need for significant capital expenditure on a new substation and power lines."



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