



GREGGS

ENABLING ENERGY SAVINGS OF 5% PER ANNUM

IMPROVING COMPLIANCE, REDUCING COSTS AND LOWERING CARBON EMISSIONS



PROJECT SNAPSHOT

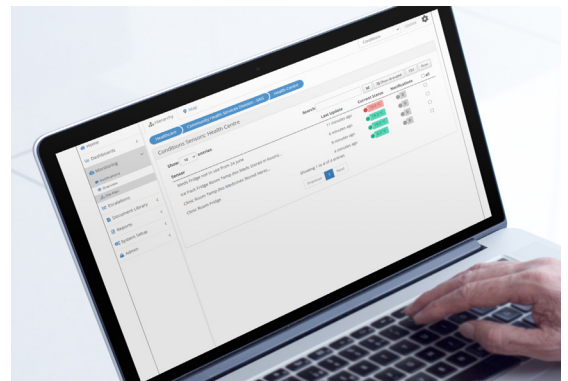
Greggs began looking for ways to automate temperature monitoring and records for British Retail Consortium (BRC) standards within their food manufacturing sites, specifically targeting the refrigeration and freezer units. The required manual condition monitoring of these critical assets was labour intensive and also open to human error.

The initial installation of the wireless sensor technology from Invisible Systems alongside the

Real-Time Online portal enabled them to validate that continuous monitoring had taken place for the annual BRC audit. In addition the system became a vital early fault warning and diagnostic tool saving substantial costs on stock loss and asset maintenance.

Energy monitoring has been an additional feature of the Invisible Systems technology suite. With the addition of further wireless sensors we have added automatic energy monitoring to the Realtime Online portal. This has enabled us to engage all staff on energy awareness by displaying the Energy Dashboard on a large TV in the workshop providing remote access via the internet.

Since Invisible Systems IoT solution were implemented at the initial Glasgow site in 2008 we have now rolled out the system to an additional 8 locations. .



PROJECT OBJECTIVES

- Improve compliance for audit purposes
- Monitor energy consumption
- Reduce carbon emissions
- Provide early warning of faults
- Reduce quantity of lost stock
- Reduce risk of human error when monitoring temperatures



PROJECT OUTCOMES

With the guidance of Invisible Systems, Greggs installed a comprehensive system, including:

- Wireless temperature transmitters
- RF Gateways
- Wireless pulse transmitters
- Wireless electricity meters

After the implementation of the system, Greggs were able to achieve:

- Automation of condition and temperature monitoring across their sites
- Automation of reporting which could then be used to satisfy compliance requirements
- A pro-active asset maintenance programme which led to a reduction in costs
- Continued energy savings across all utilities of 5% per annum

“Realtime Online saved time and costs on our condition monitoring for BRC compliance.... We soon realised that extending the system to monitor our utilities would enable us to save energy and reduce carbon emissions.”

- **George Barnes**, Engineering Director, Greggs.