

FPS TRU Manager Cuts Transport Refrigeration Emissions at Selected Waitrose Distribution Centres



Overview

As part of its efforts to decarbonise, leading UK supermarket Waitrose is plugging in its transport refrigeration units (TRUs) in distribution centres. In doing so, they can eliminate up to ten per cent of total fleet fuel use and reduce overall carbon and particulate emissions whilst improving air quality in depots.

'FPS' collaborative approach has delivered a solution that ensures electricity capacity isn't breached when we plug in transport refrigeration units in depots. Their Operate platform monitors site usage and remotely controls electricity to their retrofitted 'smart plug'. This load balancing really comes into its own in the summer months when the units require more energy and ensures we don't risk a breach.'

Jackie Hewson, Partner and Alternative Fuels Implementation Manager

The challenge

To realise its TRU fuel and emission saving goals, Waitrose needed to overcome several challenges:

- Building the business case for capital investment in plug infrastructure.
- Tracking fuel and associated carbon savings as part of its statutory carbon reporting duties.
- Monitoring utilisation at sites to identify when maintenance or training interventions were required.
- Avoiding costly and time-consuming grid connection upgrades.

The solution

FPS deployed its Operate platform TRU variant (FPS TRU Manager) to track, report, and analyse TRU energy usage at distribution centres. FPS then developed an innovative “smart plug” that enables TRUs to be controlled remotely to mitigate power peaks.

At Waitrose’s Aylesford depot, each plug socket uses c.8,200kW hours per year. FPS and Waitrose have converted 32 of the 139 sockets to the smart plug, creating half a megawatt of load shift potential to avoid a grid connection upgrade.

Impact

Since deploying the FPS TRU Manager at Aylesford, Waitrose has saved:


- Around £40k per month per site in fuel costs
- 100 T per month of CO₂e.

Fuel, cost, and carbon savings are continuously calculated and used to support compliance reporting. The technology also reports utilisation drops that help identify maintenance or training requirements.

The use of TRU technology and monitoring has now been rolled out to four Waitrose distribution centres.

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