PTSG
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Niche Specialist Service Provider

Case Study

greencore

PTSG and Greencore

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PTSG and Greencore: ensuring an effective transition to a carbon-neutral fleet
The transformation of Greencore's electric vehicle fleet is a prime example of two organisations working closely together, ensuring the exact specifications of the brief were met.

Established in 1991, following the privatisation of Irish Sugar, Greencore now has over 16 manufacturing sites and 18 distribution centres across the UK. With a net income in 2021 of £25.7 million. They are known as the world's largest sandwich manufacturer. Employing over 13,000 people, Greencore supplies a wide range of chilled, frozen and ambient foods to some of the most well-known retailers and food service customers in the UK.

Greencore was in search of an electrical safety company to help it to achieve electrical compliance. They needed a business that shared the same values and high-quality work ethic, going above and beyond for their customers at all times. That's exactly what they got when they partnered with Premier Technical Services Group Ltd (PTSG).

With five independent divisions supplying a full range of specialist services, PTSG is one of the UK's leading providers to customers in a wide range of industry sectors. PTSG Electrical Services Ltd has a large department dedicated to the provision of fixed wire inspection and testing. When Guardian Electrical Compliance (Guardian) was acquired in October 2018, it brought to the Group a premium approach to electrical testing, along with a vision to improve electrical safety standards for all duty holders, delivering blue-chip clients high-quality testing services to help them achieve electrical compliance to satisfy the Electricity at Work

Regulations 1989

The Issues Faced by Greencore Regional Facilities Manager, John Hughes, who deals with the 17 Greencore "Direct to Store" sites within the group, originally contacted PTSG (via Guardian) in 2021. John wanted to know if the company was able to conduct mains analysis at various sites within his division. He needed to know what spare capacity he would have on each installation if they were to have multiple EVSE (Electrical Vehicle Supply Equipment) units installed at each site. Installation of EVSE was crucial as the company was moving over to a carbon-neutral fleet, and John needed to ensure that each site had sufficient spare capacity to power the EVSE units safely.

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Greencore was already overseeing a project on feasibility but required further data. John wanted to know exactly how much spare capacity each installation had, which would enable him to work out the exact number of EVSE units they were able to install within each site.

The 17 sites ranged in size, from small 10-van depots to large 80-van depots, with no two being the same. The existing electrical reports John held for each site were soon identified as a major concern, as the paperwork was often outdated. As the installations had been altered and upgraded over the years, much of the paperwork was not updated, therefore did not reflect the current electrical system.

PTSG's Proposal and Testing Methodology

PTSG's Technical Contracts Manager, Matt Gilmore, suggested that he should capture a week's worth of data for each Greencore site, with data including current usage and power consumption. At the end of the week, a report would then be created for each site, detailing the balancing of phases, harmonic distortion, power factor correction and most importantly, the installations consumption and capacity. The transformer and main switch would be reviewed, which meant a supply capacity could be added to the report with ease.

Upon completion of the analysis on-site, John was emailed the report and a copy was also uploaded to his TraQ-it website.

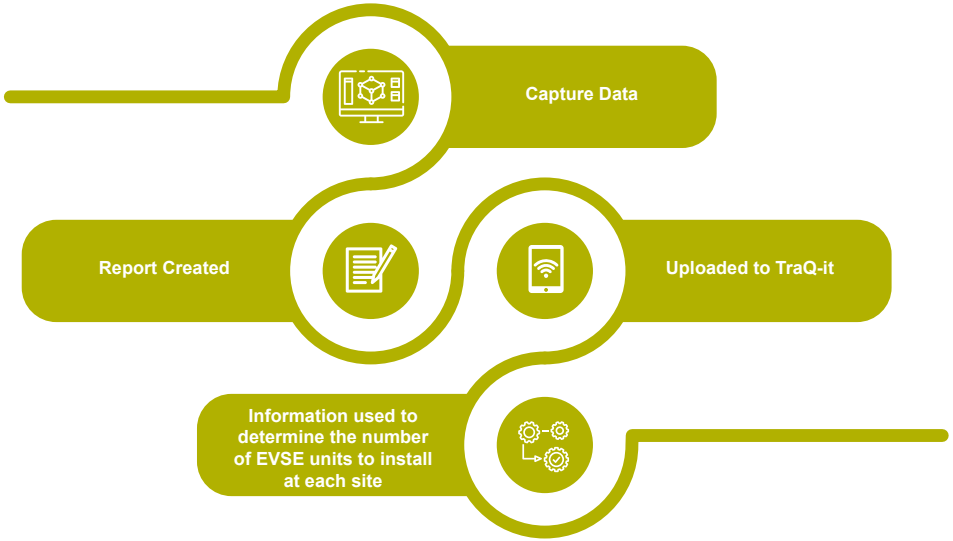
TraQ-it is PTSG's own unique reporting website which enables any duty holder to access any of their electrical safety records in one place, at any time.

Greencore's TraQ-it website now includes their mains analysis reports as well as any other electrical reports they have had completed previously.

Outcome

Out of the 17 sites John looks after, PTSG was able to undertake mains analysis at 15 in total. Once the results were made available on TraQ-it, individual reports could then be downloaded instantly, giving John a detailed overview of each Greencore site tested.

PTSG's EVSE Feasibility Process



The data provided gave John the ability to make informed choices on the number of EVSE that each site could have installed.

The largest site John looked after was over 160,000 square feet, which held a spare capacity of 850amps, giving him the option to have 26 units installed if needed.

However, one of John's smallest sites held a spare capacity of 17amps, this would not be enough to power just one 32amp EVSE unit, meaning upgrades would be needed. Although this wasn't an ideal scenario for John, in terms of electrical safety, it further confirms the importance of mains analysis testing.

John, the duty holder, has now been given a full mains analysis report for each of the sites he is responsible for, which are stored on his TraQ-it site, free to view and download at any time he requires.

John can now assess each site individually and produce an EVSE installation plan based on accurate data, thus minimising any potential dangers or issues in the future.

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How PTSG became a leader in EVSE provision

Following extensive research into the EVSE sector, PTSG launched a brand new service to support clients with challenges in reducing their carbon footprint and net zero ambitions. PTSG has been made aware of a multitude of issues from clients who have switched to electric vehicles with no prior checks carried out to confirm their maximum demand or if they had the spare capacity to install them. As such, EV vehicles are not being charged adequately or worse, not at all. This has led to 18 months of research and a white paper written, presented and published with the IET from PTSG's Technical Manager Matthew Gilmore, and new services being launched.

PTSG's feasibility study ensures an accurate picture of usage, energy consumption and maximum demand, and capacity before installation. Should clients be having issues with the performance and output, PTSG can assess retrospectively and report on appropriate recommendations and actions. This involves installing equipment for a minimum of seven days, which measures: spare capacity, current energy usage, maximum demand, load balancing, actual power watts, apparent and reactive power, harmonic distortion and power factor.

This results in a comprehensive report being provided that will be loaded to TraQit. Installing and managing Electric Vehicle Supply Equipment has become a priority for many companies however the market is fast moving and largely unregulated. Enlisting a trusted design partner can return huge benefits when considering the impact EVSE can have to your site and people.

"I was impressed by the professionalism and expertise of PTSG (via Guardian) in conducting mains analysis for several Greencore sites that I oversee.

Compliance Benefits

Knowledge of your spare capacity
A feasibility study will show actual spare capacity so any future installations can be designed correctly, as per BS7671 regulations.

Accurate measurement of power consumption
A feasibility study will measure your actual maximum demand and show an accurate value. Installations may have a calculated value from the original installation design but as installations change and additional loads are added, this can become an inaccurate figure.

Cost Saving Recommendations
A feasibility study can identify issues leading to excess power consumption to help reduce energy demand and save money over time.

Troubleshooting
Studies can identify problems in a system such as abnormal power consumption or harmonic distortion which can be used to diagnose and correct issues.

Easy Access to measurement data
PTSG reports will include all measured parameters in an easy-to-use Excel spread sheet, so filters and search functions can be utilised.

Visual representation of results
PTSG reports will include graphs to show any project requirement parameters. This could include total active power consumed against total apparent power for example. The graph shows times and dates so a detailed analysis can take place regarding peak times of consumption.

Executive summary
The report will include a summary that highlights all project parameters in a single location for quick reference and enable discussions with non-technical stakeholders.