Case Study

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Certas Energy delivers top of the class savings for Royal Hospital School

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Working with Certas I am confident that we are provided with the most reliable and expert service from the organisation. They are quick to react to any emergency refuel supplies should we have a failure on site.

The Certas Energy Team and I have a close working relationship and communicate regularly to ensure we have enough fuel to supply all our needs. We always receive regular updates on new products.

Nigel Griffiths Facilities Manager at Royal Hospital School



Introduction

As one of East Anglia's leading independent schools, the Royal Hospital School sought a fuel supplier that could warm its buildings and keep on-road fleets and ground maintenance machinery moving while supporting its sustainability values.

Working with Certas Energy, Royal Hospital School has saved nearly £20,000 on its annual heating oil costs, achieved significant productivity benefits as a result of onboarding the latest fuel management technologies and won a local authority award for its commitment to lowering emissions.

Background

The Royal Hospital School is an independent mixed boarding and day school with over 300 years of heritage. With 750 students and 250 staff (teachers and support staff) on site, the school relies on weekly deliveries of heating oil to heat the whole school, health centre and boarding houses – all of which are listed buildings.

The school's main complex (comprising several buildings including an operations department, laundry and health centre) and eleven boarding houses are heated by boilers drawing from 23 heating oil tanks.

Set in 200 acres of Suffolk countryside overlooking the River Stour, Royal Hospital School's grounds are maintained by a fleet of off-road machinery including tractors and fixed-wheel vehicles. The school also operates seven vans and four minibuses to transport pupils and staff across the site and to outside activities.

The Challenge

Housing fee-paying boarding and day students, it is imperative that Royal Hospital School's buildings remain consistently heated during term times. But without a fuel management system in place, cost-effectively managing heating oil consumption and supply posed a significant challenge.

With 23 heating oil tanks based in the school's numerous buildings across 200 acres, keeping track of fuel levels and usage was an ongoing endeavour. Maintenance staff were required to visit each tank in person, check sight gauges, make note of heating oil levels and calculate the volume of oil required for the next delivery.

As well as costing the school valuable man hours, this manual management made accurate resource and budget planning extremely difficult – especially paired with the fluctuating costs of gas oil. It also meant that anomalous oil usage – whether caused by the heating being left on or a boiler malfunction – would often go unnoticed until the next tank check, resulting in higher than average heating costs.

The Royal Hospital School has also historically relied on a steady supply of diesel to keep its fleet of on and off-road machinery moving throughout the year. However, this conflicted with the school's eco-friendly ethos – having recently spearheaded a drive to minimise its environmental impact and improve sustainability.

Furthermore, the Royal Hospital School's previous fuel supplier had no incident response plan in place for a potential oil leakage or spillage on the grounds – a key environmental concern considering the school's location in the Suffolk countryside.

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Initially drawn to Certas Energy's competitively-priced full service offering, Royal Hospital School has realised a range of added value benefits since changing supplier. A fixed-price contract has supported improved resource planning, while the locality of the Certas Energy depot in Ipswich has ensured a reliable fuel supply and a swift response to potential queries.

Following an initial consultation, Certas Energy developed a bespoke three-pronged solution to resolve the school's fuel management challenges with regards to efficiency, cost and sustainability.

1. Enhancing Fuel Management Efficiency

The first step to ensuring cost-effective heating oil management was the installation of fuel management systems in each of Royal Hospital School's 23 heating oil tanks. Certas Energy's fuel telemetry solution enables the remote monitoring of fuel levels and consumption across the school's boilers from a single dashboard.

Offering complete fuel stock visibility; sudden drop and leak alerts; the fuel telemetry system has delivered significant peace of mind to the school's maintenance team. The fuel telemetry system allows Certas Energy and the Royal Hospital School to coordinate weekly fuel deliveries, ensuring the school never runs out. The dashboard overview has eliminated the capacity requirement for individual tank checks and helped the school become more fuel efficient with usage alerts. In one incident, the telemetry system identified that one boiler was consuming ten times the expected level of heating oil – later discovered to be due to an error made by an outside contractor while performing maintenance. Thanks to the alert from the Certas Energy telemetry system, the staff were able to respond and react immediately – saving potentially hundreds of pounds in lost heating costs

2. A Cost-Effective Heating Oil Alternative

To tackle rising heating bills, Certas Energy recommended that Royal Hospital School transition from conventional gas oil to Therma35, a cost-effective heating oil alternative. The result? A saving of £19,600 on the 490,000 litres of commercial heating oil the school requires annually.

As Therma35 is a drop-in fuel and does not require modifications to existing tanks to use, Royal Hospital School was able to immediately change product without disrupting heating provision for students and staff.

Therma35 heating oil can be used instead of gas oil in commercial boilers and heaters to save money without compromising on heating output. It has zero biological content and meets winter grade requirements, which means it can be bought in bulk and stored all year round without the risk of spoilage.

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3. Cleaner Fuel For Cleaner Air

To support its drive for sustainability and minimise its fleet's environmental impact, Royal Hospital School transitioned its on and off-road vehicles to Shell GTL Fuel, a cleaner-burning alternative to diesel, exclusively supplied in the UK by Certas Energy.

Shell GTL Fuel is available in on and off-road fuel grades and is able to reduce emissions of nitrogen oxides and particulate matter by up to 37% and 50%. As Shell GTL Fuel is a drop-in solution, Royal Hospital School was able to immediately improve local air quality in its grounds without making any modifications to vehicles, tanks or machinery.

The fuel is also classified as readily biodegradable and non-toxic, ensuring minimal environmental impact if spilled in the school's grounds. To further assuage concerns and equip the school for the rare case of an oil spill, Certas Energy performed a risk assessment and provided a tailored incident response plan. This outlined swift and appropriate response measures in the event of a spill to minimise the effect on the environment.

Royal Hospital School also opted in to Certas Energy's Carbon Offset scheme. The scheme enables the school to offset unavoidable carbon dioxide (CO₂) emissions from operations using Shell GTL Fuel while simultaneously improving local air quality through its cleaner-burning nature.

The scheme offsets CO_2 emissions by purchasing carbon credits from activities related to the protection, creation or redevelopment of natural ecosystems. These nature-based solutions remove carbon dioxide from the atmosphere equivalent to those created by the production, delivery and use of Shell GTL Fuel.

Making the transition to Shell GTL Fuel with Carbon Offsets was a key contributor to Royal Hospital School's achievement of the Carbon Charter Gold Award from Suffolk County Council. The Charter recognises the carbon reduction measures of small to medium businesses in the area, with Royal Hospital School one of the select few businesses to scoop a Gold award for its environmental commitment.





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