AVK
THE POWER PEOPLE

Data Centre Case Study
Frankfurt, Germany

Overview

As a business committed to sustainability, AVK have embarked on a journey to reduce its carbon footprint across all of our European projects. By exploring and embracing a time-honoured but efficient mode of transport, AVK has not only achieved significant savings on our delivery programme, but also contributed to environmental conservation, setting a commendable example for the industry.

Sector/Location:
Data Centre, Frankurt

Size:
90MVA (Project total)

Timescale:
4 Years (Project total)

Value:
66M Euro

Total Carbon Savings
5,298 kgCO2e (Project total)

Why AVK?

As AVK have been successfully delivering similar projects across Europe for a number of years, it was our global experience and extensive technical expertise that led our client to approach us to design and deploy the critical power systems for this latest project. AVK was tasked with the delivery, installation and commissioning of 50 generators designed to provide critical backup power for a large-scale data centre project in Frankfurt.

Challenges

Each generator was housed in individual containers, with the project divided into 5 phases - 8 generators per phase. Initially, 16 generators were delivered during phases 1 and 2 through a logistics contractor using road transportation; a method that not only proved costly and inefficient, but didn't align with our sustainability objectives.

Transitioning from subcontracted road delivery to self-delivery via barge marked a pivotal change for AVK. Phase 3 of the project served as the testing ground for this new approach.

AVK's highly experienced European Project Delivery Team were unhappy with the inefficient process of transporting the engines to the container manufacturer, and then forwarding onto the site. In what could only be described as a 'Eureka moment', the German Team were discussing the underutilised transport infrastructure in the local area when a plan was formed...

After much research, investigation and cost-modelling, it became clear that moving the containers down the long-established canal network would not only save costs and delivery time, but would in fact offer a more sustainable solution than the more frequently utilised road route.

Optimised Logistics

By utilising this barge-based transport system AVK overcame a number of logistical complexities.

Delivery of all 16 generators was achieved in just one week, as opposed to the previous four-week time frame utilising the road network.

By leveraging a local port, utilising just two crane build-ups, and executing two deliveries per night to site, AVK also significantly reduced disruption to the local community through any associated road-closures and streamlined the delivery process.

Carbon Savings

More importantly, this change in transportation mode yielded considerable carbon savings. The company calculated a reduction of approximately **1,630 kgCO2e** for the initial phase of generators delivered by barge instead of road.

Scaling this approach for the remaining 26 generators across the next two phases is projected to save an additional **5,298 kgCO2e** - the equivalent of 9 flights from London to New York!

AVK's embrace of barge-based transport as a sustainable solution not only exemplifies the company's steadfast commitment to environmental stewardship but also sets a remarkable precedent for the industry.

By showcasing the tangible benefits of environmentally friendly transportation solutions, AVK has not only achieved operational efficiencies and cost savings but has also made a profound and measurable contribution to environmental conservation.

This bold and forward-thinking approach demonstrates AVK's commitment to sustainable business practices, and reaffirms the company's status as a pioneer in project delivery.

For more information on AVK's Data Centre Critical Power Capabilities, please visit www.avk-seg.com or contact us on 01628 503900

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