

PROJECT PROFILE

CLIENT

LEADING DATA CENTRE PROVIDER

LOCATION

WILTSHIRE

SECTOR

DATA CENTRE

PROJECT

ENERGY CENTRES



OVERVIEW

The client designs, constructs and operates the UK's most efficient data centres. It has pioneered the use of free air-cooling, a unique monitoring system, real time dynamic cooling and load matching technology that gives its clients the lowest total cost of ownership (TCO) along with the greatest operational flexibility. Dedicated to innovation, their modular, state-of-the-art sites in Hampshire and Wiltshire will be the largest in Europe and were the first to contractually fix power usage efficiency (PUE) for clients.

An independent company that prides itself on being easy to do business with, the client boasts the lowest TCO in the world and has saved both millions of pounds and millions of tonnes of carbon for organisations in the defence, telecommunications, government and financial services sectors. Capable of operating at the highest levels of security, their incremental approach to building out the data centre campuses means they are constantly innovating, building to the latest operational requirements of their clients and minimising the operational legacy. Through an optimised logistics support chain they have and will continue to deliver operational data centres in just 3-4 months.

JCA were engaged to carry out the design and build of the electrical and associated mechanical infrastructure to support a scalable 9MW (IT load) Tier III data centre at their strategically positioned campus in Wiltshire England. Each data room was sized at 750kW and these were constructed over three floors. The building was constructed in two phases with each phase providing a total of 4.5MW.

Modular two storey energy centre buildings were constructed to support a total of 1.5MW of IT load, six in total. JCA undertook a detailed design and coordination process to enable the installation of the electrical and mechanical infrastructure from each energy centre to the adjacent three storey data rooms. The data rooms are supported by N+N 11kV HV supplies with N+1 standby back up power generation and N+N UPS backed power supplies. Although the data centre was constructed in a phased deployment, the entire build had a common approach to the fuel strategy, BMS/EMS, fire and security systems.

JCA successfully delivered each phase of this modular deployment on time and on budget. This tailored scalable approach considered the client's current and future data centre demands. In addition, no compromise was made on the clients high standards for operational efficiency.