

Case Study: VIRTUS Data Centres

Evaluating Design Options to Deliver Top Performance



Key Information

Client

VIRTUS owns, designs, builds and operates data centres across the UK

Quick Facts

Client since: 2013

Geography: London, UK

Services

Predictive Analytics

"We chose CBRE | Romonet as our preferred partner for this project because they were able to provide a turnkey solution covering a comprehensive assessment of the new co-efficient design, construction of the facility, and subsequent operation on completion."

Neil Cresswell
CEO, VIRTUS



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Challenge

Virtus sought to build a new flagship data centre 'LONDON2' to meet the growing demand for scalable colocation services. The project presented a variety of challenges for the VIRTUS design team. They were charged with developing a competitive CapEx profile while ensuring high standards for quality, flexibility and service at minimum operating cost and at a competitive power usage effectiveness (PUE) rate. VIRTUS looked to retain a partner to assess and validate vendor design solutions and products to help them achieve these objectives.

Solution

The VIRTUS design team had identified that indirect/free air cooling could deliver a low PUE while delivering best-in-class operating and financial performance. To some extent this had been already validated by their own market analysis and vendor references provided. However, they turned to CBRE | Romonet to independently assess and determine the lifecycle running costs based on the performance of each vendor solution and compare them against the overall capital and operational cost profiles over a 10 year analysis period.

The chosen technologies for each design option were validated by the CBRE | Romonet model as to whether they were able to deliver the required performance at the optimal total cost of ownership (TCO). The analysis confirmed that indirect free air was the best choice given the climatic conditions of London. In addition, a comparison was made between two competing vendor products using 'what if' scenario analysis with the following objectives: low TCO, high agility/ flexibility, class-leading efficiency (e.g. PUE), excellent quality/durability of the construction and superior resilience (Tier III certification required).

The CBRE | Romonet model confirmed that the design choices made would meet the business objectives and furthermore was helpful in selecting the final vendor cooling solution. CBRE | Romonet not only validated the choices made, but also created a long term forecast with lifecycle TCO and PUE forecasts for the data centre.

CBRE | Romonet is now performing a similar exercise for the company's LONDON1 site.