

REFERENCE CASE STORY

AEGON upgrades infrastructure with DPA



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01 Conceptpower
DPA UPS

AEGON is one of the world's largest life insurance and pension companies, employing over 29,000 people, across 20 countries and servicing over 40 million customers around the globe. Its Edinburgh facility, which was selected to become the primary European hub and a vital link in the company's disaster recovery plan, recently underwent a £6.5 million infrastructure upgrade (the largest in the facility's history). The extensive work included the design and installation of a new totally electrical power infrastructure – including a UPS power protection solution for its mission-critical data center.

This pressure was somewhat eased by the fact that consulting and building services engineering practice, RSP Consulting Engineers LLP, was awarded the design and supervision based on their unrivalled experience and track record in the data center arena. ABB's modular UPS, Conceptpower DPA, was also chosen as the power protection option, which perfectly matched AEGON's requirements following an extensive UPS system review. The project had to be completed quickly, but it had to be handled with care, as it was a live working environment. Down-

When AEGON decided to create a primary European hub at its Edinburgh facility, the company invested over six million pounds upgrading the site's infrastructure and turned to Uninterruptible Power Supplies Limited (UPS), ABB's business partner in the UK, to look after its power protection requirements.

time was not an option. It's about consistency of purpose, breaking everything down into constituent parts and delegating up and down. Success is about allowing the contractors and suppliers the freedom to do what they do best but within the constraints of working in a live data center and the day-to-day running of the business.

Inadequate Existing Power Protection

Existing back-up power protection on site came from a 14-year-old static traditional UPS, with a single back-up generator. In view of the fact that the company's 32,500 square meter site is critical to business continuity, with synchronous operation between Edinburgh and North America, the existing system was wholly inadequate. Operating and energy efficiencies were poor, it was inflexible, had insufficient resilience and could not be easily expanded.



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02 Customer installation

The Relevance of Modular UPS based on Decentralized Parallel Architecture (DPA)

Aegon installed various types of UPS back-up systems including ABB's modular UPS technology in data centers, comms and SER rooms previously. ABB systems, distributed by Uninterruptible Power Supplies Ltd. in the UK, are particularly suitable for such environments because of their scalability and maintainability. In comparison with traditional static UPS, modular designs are smaller and lighter.

They also allow you to install higher capacity in a much smaller footprint. They are easy to site; in this case via an existing 2,500kg capacity service lift. Aegon considered installing four 400kVA traditional UPS units in an N+1 design, but it would have entailed costly, disruptive and time-consuming building works to crane them into position within the roof level plant room.

Conceptpower DPA has improved availability measures at AEGON by providing the required capacity (currently 750 kVA / 600 kW) in 30 by 50 kVA UPS modules. Housed in cabinets and operated in a parallel N+1 configuration, the modules are 'hot-swappable'. The floor space required by each cabinet is 0.58 square meters and a cabinet weighs just 490 kg. An equivalently sized static UPS would require 5–6 square meters of floor space and weigh 8000kg

A modular system removes potential dangerous situations. Should a module fail at AEGON, the engineer would be onsite a mere 10–15 minutes swapping out the faulty module for a fully functioning unit. The faulty one can later be examined and repaired at leisure in ABB's partner workshop, which is a risk-free environment.

Right-sizing Power Protection for AEGON

Another key feature of modular UPS is termed Right Sizing. In traditional static installations, UPS units are often oversized so they are not required to regularly run beyond their design limits. This carries a cost implication. The new system has been designed to more accurately match total load requirements. This also reduces the battery count and increases efficiency because each module operates at a much higher load than a traditional static UPS (usually running at only 25% load).

A reliable power supply is the lifeblood of any organization. Few can revert to manual operation in the event of a mains power failure. In AEGON's case, with ABB's Conceptpower DPA at its heart, critical power supplies can be sustained.